

Sequence Listing

<110> Southern Illinois University
Lightfoot, David
Meksem, Khalid

<120> ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI
UNDERLYING RESISTANCE TO SOYBEAN CYST NEMATODE AND SOYBEAN SUDDEN
DEATH SYNDROME AND METHODS EMPLOYING SAME



<130> 1268/4/2

<140> 09/772,134

<141> 2001-01-29

<150> 60/178,811

<151> 2000-01-28

<160> 122

<170> PatentIn version 3.0

<210> 1

<211> 87

<212> DNA

<213> soybean

<400> 1

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tgggtttctg ataaccgtgg tcgttaa 87

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<211> 92

<212> DNA

<213> soybean

<400> 2

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agatttggtg ttcagataac cgtggtcgtt aa 92

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<211> 113

<212> DNA

<213> soybean

<400> 3

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<211> 135

<212> DNA

<213> soybean

<400> 4

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gtatattagg aattc 135

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<211> 113
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<213> soybean
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agcgtaacct ggctgaggag agcctcggcg tcgtccttgc tgaagcagaa gaggaagagc 360
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ggccaataag cgtaacctgg ctgaggagag cctcggcgcc gtccttgctg aagcagaaga 360
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<210> 9

<211> 165

<212> DNA

<213> soybean

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<211> 164

<212> DNA

<213> soybean

<400> 10

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<211> 114

<212> DNA

<213> soybean

<400> 11

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<211> 114

<212> DNA

<213> soybean

<400> 12

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<210> 13

<211> 3106

<212> DNA

<213> soybean

<220>

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<222> (1)..(3106)

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

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aaaatagccc aagccttggc cggggttgt ttgccttcat tcccaggaga acatcataca 1980
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<211> 830
<212> PRT
<213> soybean
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<222> (1)..(830)
<223> Xaa is any amino acid
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Trp Val Gly Ile Lys Cys Ala Gln Gly Gln Val Ile Val Ile Gln Leu
20          25          30

Pro Trp Lys Gly Leu Arg Gly Arg Ile Thr Asp Lys Ile Gly Gln Leu
35          40          45

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Phe	Asn	Asn	Arg	Leu	Thr	Gly	Ser	Ile	Pro	Leu	Ser	Leu	Gly	Phe	Cys	85	90	95	
Pro	Leu	Leu	Gln	Ser	Leu	Asp	Leu	Ser	Asn	Asn	Leu	Leu	Thr	Gly	Ala	100	105	110	
Ile	Pro	Tyr	Ser	Leu	Ala	Asn	Ser	Thr	Lys	Leu	Tyr	Trp	Leu	Asn	Leu	115	120	125	
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Leu	Pro	Asn	Ser	Trp	Gly	Gly	Asn	Ser	Lys	Asn	Gly	Phe	Phe	Arg	Leu	165	170	175	
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Lys	Phe	Ser	Gly	Ala	Ile	Pro	Asn	Glu	Ile	Gly	Thr	Leu	Ser	Arg	Leu	210	215	220	
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Thr	Leu	Ser	Asn	Leu	Ser	Ser	Leu	Thr	Leu	Leu	Asn	Ala	Glu	Asn	Asn	245	250	255	
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Ser	Val	Leu	Ile	Leu	Ser	Arg	Asn	Gln	Phe	Ser	Gly	His	Ile	Pro	Ser	275	280	285	
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Asn	Leu	Ser	Asn	Val	Ser	Tyr	Asn	Ser	Leu	Ser	Gly	Ser	Val	Pro	Pro	325	330	335	
Leu	Leu	Ala	Lys	Lys	Phe	Asn	Ser	Ser	Ser	Phe	Val	Gly	Asn	Ile	Gln	340	345	350	
Leu	Cys	Gly	Tyr	Ser	Pro	Ser	Thr	Pro	Cys	Leu	Ser	Gln	Ala	Pro	Ser	355	360	365	

Gln	Gly	Val	Ile	Ala	Pro	Pro	Pro	Glu	Val	Ser	Lys	His	His	His	His	370	375	380	
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Leu	Val	Val	Leu	Ile	Ile	Leu	Cys	Cys	Val	Leu	Leu	Phe	Cys	Leu	Ile	405	410	415	
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Gly	Asp	Val	Glu	Ala	Gly	Gly	Glu	Ala	Gly	Gly	Lys	Leu	Val	His	Phe	450	455	460	
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Lys	Gly	His	Arg	Glu	Phe	Glu	Ser	Glu	Val	Ser	Val	Leu	Gly	Lys	Ile	515	520	525	
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Cys	Val	Leu	Val	Phe	Asn	Tyr	Asn	Leu	Glu	Phe	Tyr	Leu	Ser	Asn	Leu	580	585	590	
Tyr	Asn	Ser	Asn	Arg	Arg	Thr	Val	Gln	Thr	Lys	Thr	Pro	Lys	Glu	Gln	595	600	605	
His	Leu	Xaa	Phe	Asn	Ile	Pro	Tyr	Gln	Xaa	Ser	Glu	Ile	Phe	Ser	Trp	610	615	620	
Ser	Ser	Xaa	Cys	Arg	Gly	Asn	Xaa	Thr	Phe	Ile	Ile	Gly	His	Lys	Met	625	630	635	640
Lys	Ile	Xaa	Gln	Asp	Leu	Ala	Val	Ala	Cys	Ser	Pro	Ser	Phe	Pro	Glu	645	650	655	
Thr	Ser	Tyr	Met	Asp	Leu	Xaa	Ser	Ser	Asn	Val	Cys	Xaa	Xaa	Asn	Xaa	660	665	670	
Met	Leu	Lys	Leu	Gln	Phe	Trp	Ser	Phe	Ser	Val	Asp	Val	Asn	Cys	Cys	675	680	685	

Xaa Phe Gln Arg Asp Ser Tyr Ser Trp Ser Ile Gly Ile Pro Gly Thr
690 695 700

Xaa Ala Leu Lys Ala Gln Glu Ser Lys His Xaa Asn Xaa Tyr Leu Gln
705 710 715 720

Ser Trp Cys Tyr Leu Val Arg Thr Pro Asn Glu Glu Ile Thr Trp Gly
725 730 735

Val Tyr Glu Trp Thr Arg Phe Ala Ser Val Gly Cys Leu Ser Cys Gln
740 745 750

Arg Gly Val Asp Lys Xaa Gly Phe Xaa Cys Arg Leu Asp Glu Arg Cys
755 760 765

Ile His Ser Trp Arg Arg Val Ala Lys His Val Glu Ala Arg Phe Ala
770 775 780

Leu Cys Xaa Ser Phe Ser Ile Ser Thr Thr Arg Ser Ser Ser Ser Ser
785 790 795 800

Pro Ala Ala Gly Arg Asp Xaa Thr Arg Glu Ile Ser His Ser Gln Ser
805 810 815

His Leu Pro Gly Arg Pro Leu Glu Pro Tyr Ser Glu Ser Tyr
820 825 830

<210> 15
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<212> DNA
<213> soybean
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<221> promoter_region
<222> (1)..(726)
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caagtttcag gacaagtaat gcagaattat ggaaaagcaa tctgactaag acaaaagagc 180
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naatct 726

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<210> 16
<211> 649
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<213> soybean
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<211> 558
<212> DNA
<213> soybean
<220>
<221> partial_cDNA
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558

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<212> DNA
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<221> partial_cds
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aagtgtgctc agggacaggt tattgtgatc cagcttcctt ggaaggggtt gaggggtcga 120
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tntaggctta aacactngnc attctaataa tgccttgaat gggaacctcc ctgttccctc 720
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<210> 19
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<222> (1)..(781)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
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accgacaaaa ttggccaact tcaaggctc aggaagctta gtcttcatga taaccaaat 180
gggtgtcaat cccttcaact ttgggacttc ttccaacctt agaggggttc aagttattca 240
acaataggct tacaggttcc atacctcttt ctttaggttt ctgccctttg cttcaagtct 300

cttgacctca gcaacaactt gctcacagga gcaatccctt atagtcttgc taattccact	360
aagctttatt ggcttaactt gagtttcaac tnccttcttg gncctttacc agctagccta	420
actcactcat tttctctcac ttttctttct cttcaaaaaa acaaactttc tgggtccttt	480
ctactcttgg ggggggaatt ccagaatggn ttcttttaggg ttnaaaattg atcctagaca	540
tactttttac tggggacgtc ctgcttcttt ggnagcttaa agagctcaat gagattncct	600
tagcataata agttaggggg gctttnccaa agnaatagga ncctttntag ggttaaaaac	660
ctggcatttt taaaatgcct tgaangggac ttgnccgctn cccctntaat tatccncctt	720
acnccgntgg anggagagaa aanncccttg caaanaaaac cctcaaaggt tagggngatc	780
g	781

<210> 20
 <211> 861
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(861)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 20

gaatgggagg agtgggaaag acagtggcta tggagcttgt tccggagggt gggttggaat	60
caagtgtgct caggacagg ttattgtgat ccagcttctt tggaagggtt tgagggtcg	120
aatcaccgac aaaattggcc aacttcaagg cctcaggaag cttagtcttc atgataacca	180
aattggtggt tcaatccctt caactttggg acttcttccc aaccttagag gggttcagtt	240
attcaacaat aggcttacag gttccatacc tctttcttta ggtttctgcc ctttgcttca	300
gtctcttgac ctcagcaaca acttgctcac aggagcaatc ccttatagtc ttgctaattc	360
cactaagctt tattggctta acttgagttt caactccttc tctggctcct taccagctag	420
cctaactcac tcattttctc tcaactttct ttctcttcaa aataacaatc tttctggctc	480
ccttcctaac tcttgggggtg ggaattccaa gaatggcttc tttaggttc aaaatttgat	540
cctagatcat aactttttca ctgggtgacgt tcttgcttct ttgggtagct taagagagct	600
caatgagatt tcccttagtc ataataaagt ttaatggagc tataccaaat gaaataggaa	660
ccctttctan gcttaaacac ttgacatttn taataatgnc ttgaatggga acttgcttgc	720
taccctctnt aattatcctn cttacactgn tgaatgcaaa aaacaacctc ttgcaataaa	780
tcccttaaan ttangnnaat gggaaanttn tttntgattt gagtnaaacc aattaatggc	840
atattnttta acatttaaan t	861

<210> 21
<211> 761
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(761)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 21
gaatgggagg agtgggaaag acatgggggtt gaagggtgtt acccacatag ttgaatatatt 60
cccacaaatg agcttgagtt aaatttcttg gcaagcagag gggggacaga acctgagagg 120
ctattgtagg aaacattgaa gggatttaga ctgcgctgac tgtcaaagga gactggaatt 180
tctccactga aattattcag tgacaaatca agctgcctaa gcgaggaaat gtttgcaatg 240
cttgaaggaa tatgtccact aaattgggtt ctactcaaaa tcagaacaga aagattacgc 300
aatctaccta aactttgagg gatttgattg tcaaggaggt tgttctctgc attcagcagt 360
gtaagtgagg ataaattaga gagggtagca ggcaagttcc cattcaaggc attattagaa 420
atgtcaagtg tcttaagcct anaaagggtt cctatttcat ttggtatagc tccctaaact 480
tattatgact aagggaatc tnattgagct ctnttaactc ccaaagaaca ggacgtncca 540
gtgaaaaagt atnatctagg atcaaatttg aacctaaaaa gcattttgga tcccccaaa 600
gtaggaagga gcanaagatg tntttnaaaa anaaatanaa aatatagtag tactgtaagc 660
naaaagggtga ctaatagcat aantatgata caaattagga tttcttanaa ttttttnnaa 720
aatnnnangn aaccaaaaaa gngacntncn tttnaanacc c 761

<210> 22
<211> 856
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(856)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 22
aatgggagga gtgggaaaga cagtggctat ggagcttggt ccggagggtt gggttgaatc 60
aagtgtgctc agggacaggt tattgtgatc cagcttcctt ggaagggtt gaggggtcga 120
atcaccgaca aaattggcca acttcaaggc ctcaggaagc ttagtcttca tgataaccaa 180
attggtgggt caatcccttc aactttggga cttcttccca accttagagg gggttcagtta 240
ttcaacaata ggcttacagg ttccatacct tttcttttag gtttctgcct ttgcttcaag 300
tctcttgacc tcagcaacaa cttgctcaca ggagcaatcc cttatagtct tgctaattcc 360
actaagcttt attggcttaa cttgagtttc aactccttct ctggtccttt accagctagc 420
ctaactcact cattttctct cacttttctt tctcttcaaa anaacaatct ttctggctcc 480

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cttcctaact cttggggtgg gaattccaag aatggcttct ttaggcttca aaaattgatc 540
ctagaacata acttttttac tggtgacgtt cctgcttttt ttggtaggct taaaganaag 600
ccaatgagaa tttccttagt catnataaag ttaaggggag cttttnccaa atgaaaaaag 660
gaaccctttt taggcttaaa nanacttgac aatttntaat aatgcccttg aatngggaac 720
ttgcctgcta ccccttttaa tttatcctac ttaccctgnt ngaaggcaaa naacaacccc 780
tttgcaataa aaaccnaaa gttaagggga angnggnact ttntntctnn tttngggnaa 840
accanttann ggcncct 856

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<210> 23
<211> 826
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(826)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 23
gaatgggagg agtgggaaag acatgggggtt gaagggctgt acccacatag ttgaatattt 60
cccacaaatg agcttgagtt aaatttcttg gcaagcagag gggggacaga acctgagagg 120
ctattgtagg aaacattgaa gggatttaga ctgcgctgac tgtcaaagga gactggaatt 180
tctccactga aattattcag tgacaaatca agctgcctaa gcgaggaaat gtttgcaatg 240
cttgaaggaa tatgtccact aaattgggtt ctactcaaaa tcagaacaga aagattacgc 300
aatctaccta aactttgagg gatttgattg tcaaggaggt tggtctctgc attcagcagt 360
gtaagtgagg ataaattaga gagggtagca ggcaagttcc cattcaaggc attattagaa 420
atgtcaagtg tcttaagcct agaaagggtt cctatttcat ttggtatagc ttcactaaac 480
ttattatgac taanggaat ctcatlgagc tctcttaagc tacccaaaga agcaggaacc 540
gtcaccagtg aaaaaagtta tgatctagga tcaaattttg aacctaaaaa accattcttg 600
gaattccacc ccaagaatta ggaaggagc canaaagatt gttattttga aaaaaaaga 660
aaagtgagaa aaaatgagtg agttaggctt actggtaaaa ggaccaaaaa aaggantttg 720
aaactnaaan ttaanccaat aaaacttaat ggnaataaca aanactttta nggaattctc 780
ttttnaacaa attnttntct angncaaaaa anttaancaa aggnct 826

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<210> 24
<211> 571
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(571)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

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<400> 24
tgggactggc tgtgactgat ctctctggtc taatctcttc cagctgctgg agaacttgat      60
gaactttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt      120
ttagcaactc gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat      180
ttgtccactc ctctttgaca actgaggcaa cccactgagg caaatctagt ccattcatag      240
acaccccagg tgatttcctc gttaggagtt ctaacaagat aacaccaaga ctgtagatat      300
cagtttttagt gtttgctttc ttgagctttg agagctcagg tgcccgggat cccaatgctt      360
cagctgtagc tatcacgttg gaattagcag cagttgacat caaccgagaa agaccaaagt      420
ctgcaatttt agcatttgna ttctcattaa acaacacaat gntggatgng anggtncat      480
ggatgaaggt cttctnggna agnaagnaaa acaaagcacc gggccaaggn ttgggctaatt      540
ttcaaccttg gggggcaaac naanaaatgt t                                     571

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<210> 25
<211> 727
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(727)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 25
ttacaactag tggtatcgga gaatgaaaaa ttgaagaata ataagttcag ctataataaa      60
ctcgaggggag gaaaaacaaa gaaattcatg ataaatagat ataacttatt aaatttaagg      120
gggtgtatttg cacaccctga attatagaga ttcttatatc tttgagaaaa taattaaatt      180
gggaaaaaag agataatgac tgattgagat ttgcctcaga attgttcggt ttaatattgg      240
tacgaatcta atgggttttat cctgaaagat gctcacaagt attgagggac taataaattg      300
tttataaaact actactaaat gagatgagac tttaagggtg actgaagcaa tatcatttaa      360
aaaatgacta ctcgatatttg tggtgagaaa atttattttc aatgaaaaga aaatatatac      420
atataagata aagtaattaa cataaccgaa aggaaataaa atgcaacatt ataaaaacta      480
caactatata aatgatatat acaactccta gcacatgcat tggattgtga attaattaaa      540
atgttgatat gatggtaaaa attcaaaact aaacccccca caatttaagt gacacagaat      600
ataattagcg gtgggtctttt tacagaaacg acgagaacaa aggtgtcaaa ggaaaggaga      660
tggtatgcatg tggtatgagc tcatncaatt ccaacctggt gtggacccaa gccgaagtcc      720
ttgacnn                                                         727

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<210> 26
<211> 560
<212> DNA

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<213>  soybean
<220>
<221>  misc_feature
<222>  (1)..(560)
<223>  n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400>  26
attacgcnag ctctatacga ctactatag ggagacaagc ttgcatgcct gcaggtcgac      60

tctagaggat ccccggttac cgagctcgaa ttcccaatgc cagagcttcc ctatcgtggg      120

ccccacctat gaagaataca cccacgttga aatacatggt gttgttggtg gacgcgcccc      180

gccgagagtg ccggtccacg agtatcccca acgtgcatgg cgcattgcgt tgaaacctag      240

tattcatctt cctgatggag gcagccacgt gtccgacaag gtcaatgttg ccgttttcgt      300

gaaaagggat gataatgaaa ggcaccatat tgtcttgggc gaggttgaaa atggcgctgt      360

gcatgctctt gtaagggtgc acgttgatgt aggaagaac cttgactggc ccacttgagt      420

tggtggagta gttttcgaag gcttgcata tggtggtggt gttggggtaa ttcacagaca      480

agaattttct gngaccctgt tctatgtttt atgggaagga gaatgggtgc cttttcccca      540

cnagctngat naggnggact                                                    560

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<210>  27
<211>  630
<212>  DNA
<213>  soybean
<220>
<221>  misc_feature
<222>  (1)..(630)
<223>  n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400>  27
actgcatgca tgcaagcaaa tttaacttta cacaacacac caccagagtg taagctgttt      60

cataaaaaat gattgtttcg ggctttcggg tcacaaggct tgtttagtat tcggtaagaa      120

agaaagaaat aggtgataaa taaagtggat agaaacataa aagaaaggaa taaagtaatg      180

aaaataaggg agaagtagaa taatggaaat agataagaaa tagaatggat tcgatagtat      240

atctagttta agagaaataa gaaaaataa gaacaagaaa aaaaattgca ttttaattta      300

ttatttgtag tgtagcatg attggcacga gattataagt ttttttttc gtgtttaccg      360

ttgaaggatt atatatacata ccatttggtt gtcaaccaac acggaacttt aagtctcttg      420

atgttcaaaa gcacttaaaa ctaaggaatt ttacatacata ttagtcgtct gtagactgat      480

acaggatttt aagcctatat atctagcatt gatccggttg gcaatcaata tcacattaat      540

gatcggtaaa ccattcatat aacccttttg attggtcaag aaatggcttt atgaatccca      600

ggattgagcc cagaancagg ngatactagn                                          630

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<210>  28
<211>  756

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(756)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 28
attggcttaa cttgagtttc aactccttct ctggctcctt accagctagc ctaactcact 60
cattttctct cacttttctt tctcttcaaa ataacaatct ttntggctcc cttntaact 120
gtgggggggg gaatancaag gngggcttta ggctgcaaaa ttgatccta gatcataact 180
ttttcactgg tgacgttctt gcttctttgg gtacgttaag agagctcaat gagatttccc 240
ttagtcataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctta 300
agacacttga catttctaata atgccttga atgggaactt gcctgctacc ctctctaatt 360
tatcctcact tacactgctg aatgcagaga acaacctcct tgacaatcaa atccctcaaa 420
gtttaggtag attgcgtact ctttctgtt ccgattttga gtagaaacca atttagtgga 480
catattcctt caagcatngc nnacatttcc tcgcttaggc agcttgattg tcaactgaata 540
atttcaggtg gagaaattnc agtctncttt gacagtcagc gcagtctaaa tcttcttcaa 600
tggttnctac aataggcctc tcagggtctg gcccccttt gnttggccaa ggaaanttaa 660
cttaagctta tttgngggg aaanattcaa ctatgggggg acncggccct ttaaacccca 720
gggnttttcc caggttcctt ccaagggngc anttgt 756

<210> 29
<211> 566
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(566)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 29
gacccttggt ctatagaacc gaattcgagc tcggtaccg gggatcctct agagtcgacc 60
tgcaggcatg caagcttatt attactacta ctacttatct tcaactccacc aactgtgtc 120
actaaaaccg gaaccatccc catacaaaat tctactgaag acaacatata cccaatatt 180
cccaatgcat cagcgttctc catgaaagtt gtcatttctt ttccattcaa agatccatca 240
ttgtggcgcc ttcccaccat cacaagatca tagtttcctt ccaaactatg cactgcttcc 300
aacacctcca ccccatcgtc caccgtaac tcgtaccaac aaacgttacc aatgccatat 360
ttcatgctct tgaactcgtc aattaacccc tcgtccaaca tggatatctt ctcttctct 420
tcacgctctt ctcttgcaaa ataattttac aaccacacgg tttcttggtc acgataacaa 480
acctaaacaa gctaccctcg tatctgcacg ctccgcattc gaattcccaa tgccagagct 540

tccctatcgg gggccccacc tatgaa 566

<210> 30
<211> 673
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(673)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 30
gggactggct gtgactgatc tctctggctc aatctcttcc agctgctgga gaacttgatg 60
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtggt 120
tagcaactcg tcgccaactg tggatgcac tctcatcaag tctgcatcaa aaacctcatt 180
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga 240
caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatata 300
agtttttagtg tttgctttct tgagcttttg agaagctcag gtgcccggta tcccaaagtc 360
ttccagctgt agcttatcac cggtgggaat taagcagcaa gttggacatt caacccggag 420
naaaagaccc aaaaattttg caaattttta agcaatttng gnanttcttn aatcaaggcc 480
aaccaccaat tggnttggga atgggtggaag gggttcccca atggtaattg gaagggtttc 540
ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaaggc 600
nttttggggg ccttattttt tncnaatncc ctttggnngg ggncccaaat tcnaaantgg 660
aaattggntt tnn 673

<210> 31
<211> 736
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(736)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 31
gttgnntagn tgcactatag aatncgaatt caatttaaac atttttaatt ttttgtcttt 60
gtattctatt ttttcataaa ttctaattct gctaataatt tcaattcata ttaagatcgg 120
taaatagaaa atctagaaaa aaaaacaaaa aaagtatttt tttttcattg attttatttt 180
caattgattt gtcactaaca aactgattcc tcttaaatct cacaaaagta catgtcgata 240
taaatatgag attataaatt catgatatac attttcgatt ttacatata atgttttttt 300
tatctttttt agttcctaata aagcattttt aaatgtctta tgttcctact ttgcatatca 360
gggaccatt aatgggacga ggtcactgag agcatgaaca acgtgtcttt cgtctcccga 420
acaacgtgcc atcttgacgg ctccaccact cggaatccct ggagtgggtca ccactgattt 480

tccggggaaa gcccgccggt gaaagtttga ttacaccggc aatgtgagcc ggtcgctgtg 540
gcaaccctgg tnccgggaca aangcacacc aagttgnaan tttgggtccg agggngngcca 600
naattgggggt tgcanggata ctaagcnntt ggnnacttnc ctggnnaacc caccctaat 660
nccatntttc aatggggnac cnaatttctt acaattggnt gcaananggg nttttngggg 720
aaccttttna ccccca 736

<210> 32
<211> 566
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(566)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 32
gaccnnagac gctactatag ggagacaagc tattcgaagg ggaactgaga acgatccaaa 60
gcactccaag aaacagagag tttcacattg tttgttgtgt acataatgaa gcaaacgtgc 120
gtggcatcac tgccttatta gaagagtgc acccagtgc agagagcccc atatgctct 180
acgcagtcca cttatcgag ctctgtggga aaagtgcacc cattctcctt cccataaaac 240
atagacacgg tcgcagaaaa ttcttgtctg tgaattacc caacaccaac cacatcatgc 300
aagccttcga aaactactcc aacaactcaa gtggggccagt caagggttctt ccctacatca 360
acgtggcacc ttacaagagc atgcacgacg ccattttcaa cctcgcccaa gacaatatgg 420
tgcccttcat tatcatccct tttcacgaaa acggcaacat tgaccttgtc ggacacgtgg 480
ctgcctccat caggaagatg aatactaggt ttcaagcgca tgcgccatgc cgttggggat 540
actcgnggcc ggnactctng gtgggn 566

<210> 33
<211> 614
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(614)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 33
acaacaagca acgaacagct tttaacctta aactaggcaa atgccaatat taaacaacaa 60
ataattaataa ttgtaaggct ggtcgagtat aaattaacaa aaaggccctc tattcaaacc 120
ttcatatatac atacctgntt ttaattaacg cgactactt tttcatataa aaaaagatc 180
attagaggat taatttaaag cgntttagtt tttaattacc aaagagtata attattatta 240
ggcgctttgg ccacaaatca atcacctaaa caagaaaaag aaaaagaaaa aaaaaggcaa 300

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attggactaa tgcaaaagtg gcacaatctt tgncttgaac tctttaatta gcaacaaatn 360
atactcttct gcacaaatca caagaatacc ttacatgaaa agaatggnaa tntgacgggt 420
tacattaaat tatatgcagg tttctgcagg gaatcaattn tcaagaattt aagggggggt 480
gggaattttc aatagctagc ttgactagca aagggaaaga ataaaggnaa aangcttctt 540
ggctnggcct tttggganng gnatcctttt ngctaaaccg gaaanggnta tangaatggg 600
aaaggagana atcg 614

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<210> 34
<211> 602
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(602)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 34
aggctagctg gtaaaggacc agagaaggat ttgaaactca agttaagcca ataaagctta 60
gtggaattag caagactata agggattgct cctgtgagca agttgttgct gaggtcaaga 120
gactgaagca aagggcagaa acctaaagaa agaggatagg aacctgtaag cctattgttg 180
aataactgaa cccctctaag gttgggaaga agtcccaaag ttgaagggat tgaaccacca 240
atttggttat catgaagact aagcttcctg aggccttgaa gttggccaat tttggcggtg 300
attcgacccc tcaaaccctt ccaaggaagc tggatcacia taacctgtcc ctgagcacac 360
ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgcaa 420
gaacccttct ggatcagcca actcttgctt gaaagcttat cacatgtacc tctctacaga 480
taggaggggtg cttcttcctt ttcactggnc tacctcttcg ggaataagcc acctaagag 540
aaagaaagan ctgggatagc taactctaca tagnctcaag gcnagagata attagggaaa 600
ng 602

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<210> 35
<211> 644
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(644)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 35
ggaattttga agagaagtaa agtgagagaa aatgantgan nnaggctagc tggtaaagga 60
ccagagaagg atttgaaact caagttaagc caataaagct tagtggaatt agcaagacta 120
taagggattg ctctgtgag caagttgttg ctgaggtaa gagactgaag caaagggcag 180
aaacctaaag aaagaggtat ggaacctgta agcctattgt tgaataactg aacctctcta 240

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aggttgggaa gaagtcccaa agttgaaggg attgaaccac caatttggtt atcatgaaga 300
ctaagcttcc tgaggccttg aagttggcca attttggcgg tgattcgacc cctcaaacc 360
ttccaaggaa gctggatcac aataacctgt ccttgagcac acttgattcc aaccaacct 420
ccggaacaag ctccatagcc actggcattc cagctcccg cagaaccctt ctggatcagc 480
caactcttgc ttgaaagctt atcacatgta cctctctaca gataggaggg tgcttcttcc 540
ctttcactgg nctacctctt cgggaataag ccacctaata agaaagaaag anctgggata 600
gctaactcta catagnctca aggcnaagaga taattagga aang 644

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<210> 36
<211> 748
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(748)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 36
attggcttaa cttgagtttc aactccttct ctggctcttt accagctagc ctaactcact 60
cattttctct cacttttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact 120
cttggggttg gaattccaag aatggcttct ttaggcttca aaatttgatc ctagatcata 180
actttttcac tgggtgacgtt cctgcttctt tgggtagctt aagagagctc aatgagattt 240
cccttagtca taataagttt aatggagctg taccaaataa aataggaacc ctttctaggc 300
ttaagacact tgacatttct aataatgcct tgaatgggaa cttgcctgct accctctcta 360
atttatctc acttacactg ctgaatgcag agaacaacct ccttgacaat caaatccctc 420
aaagtttagg tagattgcgt aatctttctg ttctgatttt gggtagaaac caatttagtg 480
gacatattcc ttcaagcatt gcaaacattt cctcgcttag gcagcttgat ttgcactgaa 540
taatttcagt ggagaaattc cagtctcctt tgacagtcaa gcgcaagtct aaatctcttc 600
aatgtttcct acaatagcct ctcanngtct gncccccctc tgcttgccaa gaaatttaac 660
tcaagctcat ttgtgggaaa tattcaacta tgtgggacag nccttcaacc ccatgttttn 720
ccaagcttca tacaaggagc atggccct 748

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```

<210> 37
<211> 563
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(563)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 37

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ctggctgtga ctgatctctc tgggtctaate tcttccagct gctggagaac ttgatgaact    60
tctggtcgtg ctgatggaga aggatcaaca cagtgcgaag cgagcttcaa cgtgttttagc    120
aactcgtcgc caactgtgga tgcattctctc atcaagtctg catcaaaaac ctcatattgtc    180
cactctctct tgcacaactga ggcaaccac tgaggcaaat ctagtccatt catagacacc    240
ccagggtgatt tctcgttag gagttctaac aagataaac caagactgta gatattcagtt    300
ttagtggttg ctttcttgag ctttgagagc tcagggtgcc ggtatcccaa tgctccagct    360
gtagctatca cgttggaatt agcagcagtt gacatcaacc cgagaaagac caaatctgc     420
aatttttagc tttgtattct catcaagcaa cacattgctg gatgtgaggt tccccgtat     480
gatgttctcc tgggaatgaa ggcagaacaa gccacggcca agcttggtta tttcatcctt     540
gtggccaatc aatgaatggt cat                                             563

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<210> 38
<211> 623
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(623)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 38
gattttgcac atctacttga gtaggcttca catgattccg tgtattactt ttattttggt    60
atatatacca tgtggagtat agtatcactt tttgtcctac aaccacattt tatgagactt    120
gcattttatg tgacatgaac ataaaaaata atgaaaaaga aaatgtcaca tatatatgat    180
acaatctttt taaaagtcaa tttgaataat ttttcatcag gaggaaaaag aagagagaaa    240
atgaattaag tttcttctaa aaattaaaat caacttataa aaagaaaaaa ctttaaatgaa    300
aaaaattcaa aaagaaaaag aataaaatga tcaatagcct ttaggtttta gcacaagggtg    360
aatccaaata aagaccccaa aagatagtac agaacccaac aatggtaaaa tctagaaata    420
tacatgtaaa gactgcattt atagaccatc atgactagca aatgcttaaa ggcacataga    480
tgaattaatc tatgcaacaa aatctgnccc aagttttttt tangcaagga aaatcatatc    540
attttattaa ggataactga gaggaccaat ggtgtaatca attgaaatca tgcgaggctt    600
acatgaaatc tgtcaccaag tac                                             623

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```

<210> 39
<211> 785
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(785)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

```

[illegible]

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<210> 40
<211> 640
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(640)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 40
tgggaaggcgt ccttcaattc aatcacaaag tctaaatcaa agacgagggg gctgaaatca 60
tggggggacat tgacaacgta aggtaaccac taattaatta accactaata ttatccatt 120
aatatcccat taagagataa tacatataga gccaataaat aagcatctta acaagacaaa 180
taaattatcc attattcagc ttatgcccat ggtggtatta gaagtttagg aaaaaaaaaat 240
tcatcatttg gcaattttg gctcattagc ttgaattggt tacaagggtg ggtatggact 300
tttttctttt cttttctcta aattcttcct tctatgatat acttttggtc aacttaaact 360
caatttctta tagctcaata ttttggtatt agattggaaa tatctaaaag ncacttaaat 420
tttatattta caaaaaaaaa aaaagcatcg ntctttttct ttttataaca aaggggggatc 480
aaaatcactc tttttatgaa tccgcattat ccttnataat aattaacctc cactgggatt 540
taaaggngga ttaattaaat ccggaggcca tgggaaggata tgggggaacc taatctaaaa 600
ntncatcctc aaccctaang ggaaaaataaa ggaatngggg 640

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<210> 41
<211> 808
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(808)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 41
cttttgacac tatgaatagc aattcaaata ttaaataattt ttatttttttg tctttgtatt      60

ctattttttc ataaattcta atnttgctaa taatttcaat tcatattaag atcggtaaat      120

agaaaatcta gaaaaaaaaa caaaaaaagt atttttttttt cattgattttt attttcaatt      180

gatttgtcac taacaaactg attcctctta aatctcacia aagtacatgt cgatataaat      240

atgagattat aaattcatga tatctattttt cgattttttac atataatggt ttttttatct      300

tttttagttc ctaataagca tttttaaatg tcttatgttc ctactttgca tatcagggac      360

ccattaatgg gacgagggtc actgcgagca tgaacaacgt gtctttcggt ctcccgaaca      420

acgtgtccat cttgcaggct caccacctcg gaatccctgg agtggttcacc actgattttc      480

cggggaagcc gccggtgaag tttgattaca ccggcaatgt gagccggttcg ctgtggcaac      540

ctgttcccg gacaaaggca cacaagttga agtttgggtc cgagggtgca gattgtgttg      600

caggatacta gcattgtcac tcctgagaac caccctatcc atcttcatgg gtcgattttc      660

acattgttgc agagggtttc gggaaacttcg acccaaagaa agatccgcga aattcaacct      720

tggtggatcc cctttgaaaa acacagtggc tggcctgtaa atggatgggc aagtattcga      780

tttgggggct gataaccna gtaaatnt      808

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<210> 42
<211> 605
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(605)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 42
ctcccgggtc ccaagtaata ggcccctcag agccaaaaca ttggggggggc taatttttcc      60

tagaacactg acttctgatt caaattctct atgaccttta gtgatctttt ccctcaatct      120

ctttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct      180

ctttcccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc      240

atcaaaatgg actagtttcc ctccagcctc cccacctgct tcaacatcac caccagcaac      300

tgaggaggact cctttttctg cctcatagtg gccgctctac cctcggtggc ttggccgntc      360

ccggccttag atgntgatct ctttctgatc aggcagaaaa gcaggacaca acaaagnata      420

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atcaggacta cgaggagaac tcctgctact atgagaatta tgnctttggg gcttagcttc 480
ctatgatggg gatggttnga cacttcanga gggggggcaa tgactccctg ggaggagct 540
tgggaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc cacaaangag 600
cnngn 605

<210> 43
<211> 275
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(275)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 43
ctgaacggaa gtgactgcgt ttgtgtcggg tgtaagcagg gaggaggagc attataggtc 60
tcggttttgc tctttactcc tttggcacga tggtgagaat gcttattgtg gtgattcggg 120
gatttgtatt cgagtatggc ggttgtagtg gtgtgtcga aggcagcgtt ttgggcggat 180
tggtacgcac gcgccgccat gtagtagcgg gaaggtggct ggtcnccggg gattaagacg 240
tcggcgggttt gcccggggcc cactatgagg acttt 275

<210> 44
<211> 632
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(632)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 44
tgtatataat taaaatgagt ttaatattta tgtattaata gtataaaatt tatcatacat 60
gatgaatggg gaaattttga attatgatta aataattata taaaaaaatt tacatgatga 120
atgaataact ttttttttct caattaaaat tatgatcctt tgtcgatatg ttttactgtg 180
tcgacctttt ttttcggggg agaggggacc agtaggagaa gtagtattta gtaaaagaag 240
ggagagagaa gttgacttat cctttaatta gtttagagaa aattagacga gaaggaaaaa 300
aaataggcga aagtcacttt ttctttctat ctctaccaag aatgttgatg aaaaagtggg 360
gagcagaatt ttaaattttt attttcatat ttatccttct ccacattttt ggtttcttcc 420
atttttttat aaaatgattt attttagggc ataggtaact tttcaatttt tttcattcta 480
ttcgatcaaa taaatagaaa aataatttac ttttctttct tttaaccttt ttcattttc 540
tctcataacg accacttatt aattacctct ttttccccac tttttgctat ncaaattctat 600
ctttgaattt cttccttttc attttgggtct cn 632

<210> 45
<211> 650
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(650)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 45
ttcacagaca tagcaaaatt ctgaagtaag aagcaagttc acgtgtgatg gcgaaaccca 60
ttatagaata tgtagactg aaaggtaaca aattaaaata tgttttattg cagaaaccat 120
aaactaataa accttttggg tagatagaaa agtgataaat catacataat aataactgaa 180
atactcagct tttaaatcaat ttaattcaat atatatctat ttttgaattt ttcaaagaga 240
tgcttagcta gggagggaaac ctaatttagt ataaaaaaaa gaaacaaatt aaaaacataa 300
attgccattg aatgcctctt aaaatattcc gatccattga tgtctacata ataatatata 360
ttattgatat aataaccgat tgaataaaat ggatatacct attacgtaat agcagatttg 420
tctacgcaa agagacagtc aaagggtgcta attagaaatt aatcgcccca taataaaatt 480
ctaaaccttt gaaaagataa atcaattctc aaaaagattt attttactta tctcagtacc 540
atgcaccatg gatcatctta ctggctcggg tangaatttt caaagctacg ccacaaattg 600
aaattgggct aaaaatcaaa catgcatggg gtcacaacta tattactagt 650

<210> 46
<211> 628
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(628)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 46
gaatgcacat ttataaaacg tgttgatcct ctccccgnng ggggaccaat taataaggta 60
ccctgttgcc cctaggggac attggatggc catcagatgg tgcataata caccaaagtt 120
tatacagcat tatagtgact ttcaacctcc tctctccgag gtcccatat attctctcta 180
ttgaacttgt aaagactaat gaacttatga agactatcac tgaaaccac tatggaagcc 240
ccagtagtaa aatggncatg catgctcacc aaaagtttat acagcattat agcgacatac 300
gacctcactc ccaggncac atgctctatn gaacttctaa agctatctcn gaacctatt 360
atagcttcat gagggtaaca tgcattttag cgacttagaa aactacatat cattgagcgt 420
gatcnttaag aaggcctcat tttagacaaa aagaacatga tggatttgcc tttatattcg 480
gttactaacc ttgatagcta ttttggnacg agagaaaaat attgacatgc ccngngaac 540
aaaaggtaga taatnattaa agagataaag aactatcccc ttgctagggg naaaaaaaaa 600

ntatatccct atttaaataa aanccatc 628

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<210> 47
<211> 736
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(736)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 47
tgggtgtatat aattaaaatg agtttaatat ttatgtatta atagtataaa atttatcata 60
catgatgaat ggtgaaattt tgaattatga ttaaataatt atataaaaaa atttacatga 120
tgaatgaata actttttttt tctcaattaa aattatgata ctttgtcgat atgttttact 180
gtgtcgacct tttttttcgg gggagagggg accagtagga gaagtagtat ttagtaaaag 240
aaggagagaga gaagttgact tatcctttaa ttagttttaga gaaaattaga cgagaaggaa 300
aaaaaatagg cgaaagtcac tttttctttc tatctctacc aagaatgttg atgaaaaagt 360
ggggagcaga attttaaatt tttattttca tatttatcct tctccacatt tttgttttct 420
tccatttttt tataaaatga tttatttttag ggcatagtta acttttcaat ttttttcatt 480
tctattcgat caaataaata gaaaaataat ttacttttct ttcttttaac cttttcatat 540
ttctctcata acgaacaact tattaattta cctcttttcc cccacttttg tctatccaaa 600
ttctatcttt gaattttctt ccttttcatt ttggttctca acccaaataa agaagaacga 660
gtttggataa atcataaagg ttatatacc tataantgga agaacattta aatgggtccaa 720
ngggccttaa aattct 736

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<210> 48
<211> 695
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(695)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 48
atgccagagc ttcccttata gtggccccac ctatgaagaa tacacccacg ttgaaataca 60
tggtgttggt gttggacgag cccagcccga gaggccggt ccacgagtat cccaacgtg 120
catggcgcat gcgcttgaaa cctagtattc atcttctga tggaggcagc cacgtgtccg 180
acaaggtaaa tggtgccgtt ttcgtgaaaa gggatgataa tgaaaggcac catattgtct 240
tgggcgaggt tgaaaatggc gtcgtgcatg ctcttgtaag gtgccacgtt gatgtagggg 300
agaaccttga ctggcccact tgagttgttg gagtagtttt cgaaggcttg catgatgtgg 360
ttggtgttgg ggtaattcac agacaagaat tttctgcgac cgtgtctatg ttttatggga 420

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aggagaatgg gtgcactttt cccacgagct cgataaaggt ggactgcgta naccatatgg      480
gctctnttgc actgggttgc actcttctaa taanggcagn gatgccncnc nccgtttgct      540
tnattatgta cncaacaaac aatgngaaac tctctgnttn ttgggagngc tttggatcgn      600
tctcannntnc ccttnnaata anctttntnn gnngacttnn agggcgangc ttnnnnata      660
tgntaaccaa gggngntacn annnnnggnt ntaan                                695

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<210> 49
<211> 625
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(625)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 49
tttcccaaa tctttaatct tgctaataat ttcaattcat attaagatcg gaaaatagaa      60
aatctataaa aaaaaacaaa aaaagtatct ttttttcatt gattttatct tcaattgatt      120
tgtcactaac aaactgattc ctcttaaata tcacaaaagt acatgtcgat ataaatatga      180
gattataaat tcatgatata tattttcgat tttacatat aatgtttttt ttatcttttt      240
tagttcctaa taagcatttt taaatggctt atgttcctac tttgcatatc agggacccat      300
taatgggacg aggttcactg cgagcatgaa caacgtggct ttcgttctcc cgaacaacgt      360
gtccatcttg caggctcacc acctcggaat ccctggagtg ntcaccactg attttccggg      420
gaagccgccg gtgaagttna attacacccg gcaatgtgag ccgntcgctg gggcaacctg      480
ntccggggac aaaggcacac aagttgaagt ttgggtcgag ggngcagatt gggngtgcana      540
gataactagca ttgcactcct gagaaccacc ctatccatct tcatggggac caattctaca      600
ttggtgcaga nggttccggg aacnc                                          625

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<210> 50
<211> 621
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(621)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 50
actggtgtac gatttagtgt tactagctat cccatgtaat aaatatataa atcttgaatc      60
acaaggaatg atgcaatata tggttcctct aatagtaagt tatccacca aatctgaata      120
taattaagaa gttgtattcg tctgaatgtt gtgtctaaaa gggttgattg atgaatgatg      180
gctacatgtg agagtttgat aacaacagct agctagccat tagccaagcc actaactaga      240

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cattagtttt ggttggtgt cagacaaacc gttagacctg agaacgaaag cgtattaaac 300
aaaagatgat atgtagactt ttaatatataa aagagatgga gaaaccaa at tgagatttga 360
taggtgaact ataaatcatg acagtgcatt agacaagttg gtagagtttg ttactaactc 420
atcagattct taagaaaggc aaaaatagaa actacaccac atgtcgctag cgataacgtg 480
caatttataa ataaataatg gcttcatttt catgggttagt tataaattaa tgggtcacaa 540
ttcttaattt attaggaacg tatacttcat tttgagagtg tataaagttg gaagaagaaa 600
agggatatag aaagaataaa a 621

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<210> 51
<211> 480
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(480)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 51
aagctccgcn cggggaacct nnagagtcta cctgaatccc caagntngaa cgaatacttg 60
ccaacacaaa tacgggcatg gggaaacatc tgaagaccgc tccaaagcgc cncatactaa 120
attgnnagga aaatttatat ctgacctttc atgggtgggg ggtgcatctg ctataaggaa 180
gggttcattc tgggcaagat ctgtggaaaa caatattggg gatcaaattt tagggagtga 240
tgctacaacc tcttcattat acatggattc tgaaataagt ggtgtgaact ttaaagtgaa 300
cgaagacggc atgcaaatgc ctggtattca tctagttgat ttatttgaga ctgacaccaa 360
tacaagcggc gataaacatg attccacta tgatgaagng ccatcatctt atgggtttga 420
gggcttacga cgatccaaac gtaggaacat acaacctgaa ccgntactct gattggggga 480

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<210> 52
<211> 480
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(480)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 52
aagctccgcn cggggaacct nnagagtcta cctgaatccc caagntngaa cgaatacttg 60
ccaacacaaa tacgggcatg gggaaacatc tgaagaccgc tccaaagcgc cncatactaa 120
attgnnagga aaatttatat ctgacctttc atgggtgggg ggtgcatctg ctataaggaa 180
gggttcattc tgggcaagat ctgtggaaaa caatattggg gatcaaattt tagggagtga 240
tgctacaacc tcttcattat acatggattc tgaaataagt ggtgtgaact ttaaagtgaa 300
cgaagacggc atgcaaatgc ctggtattca tctagttgat ttatttgaga ctgacaccaa 360

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tacaagcggc gataaacatg attcccacta tgatgaagng ccatcatctt atggggtttga 420
gggcttacga cgatccaaac gtaggaacat acaacctgaa ccgntactct gattgggggga 480

<210> 53
<211> 736
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(736)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 53
aatttatatta gttgatataa ccactttcaa aaatctgact tacaagactc tttagaattc 60
ataatagtga cacttgatta agttagatta gactttataa aacacgagtt tgattttttt 120
tttaataata attaagggtc tagcttatat atattatata gttgatatag actactttca 180
aaagtctgac ttaaaagtct ctttagtata cataataata taacctttta atttaggttaa 240
aaaatttgtc cctaaataaa ttaataaatc caaacttata tacaagttaa taggcttaag 300
tcttaaaaaa ataatatata tatatatata taaagcatta aaacatttca atgaaaacaa 360
tataataata ataataataa atatattatt gttattaatt catagatttt attattacta 420
ttatagaata atttgtgtgt atatatataa atatatagag agagagaggg tcattttata 480
tgagtggaga aattttaaata ttattatgaa ttttcaaaat taaaatcaca tgccatatga 540
ttttcttaaa aaattacgta actttttttt ttacaaaagt aatcatatgg ttttaaaaac 600
taattttaat aacttatata taactatata agntaaaatt ngggtcataa aataagtata 660
tcagntatth taaaaaaatt ataagntttc ataaataaat accaaatgat agtcccagg 720
gatgggncag cttng 736

<210> 54
<211> 642
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(642)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 54
ttaactttac acaacacacc accagagtgt aagctgtttc ataaaaaatg attgtttcgg 60
gctttcggat cacaaggctt gtttagtatt cggttaagaaa gaaagaaata ggtgataaat 120
aaagtggata gaaacataaa agaaaggaat aaagtaatga aaataagggga gaagtagaat 180
aatggaaata gataagaaat agaattgatt cgatagtata tctagttaa gagaaataag 240
aaaaaataag aacaagaaaa aaaattgcat ttttaattat tatttgtact gtatcgatga 300

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ttggcacgag attataagtt ttttttttcg tgtttacggt gaaggattat atatcatacc 360
atttgtttgt caaccaacac ggaactttta gtctcttgat gttcaaaagc acttaaaaact 420
aaggaatttt acatcatatt agtcgctgta gactgataca ggattttaag cctatataatc 480
tagcattgat cgggtgtcaa tcaatatcac attaatgata ggtaaaccat tcatataacc 540
cctttgattg gtcaagaaat ggctttatga atncccagga ttgagcccag aagacagggtg 600
atactagggt caattcatgg ttttaggata ggctcgtaaa cc 642

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<210> 55
<211> 659
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(659)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 55
aaaaggacct aaaagcaaaa agaaaattga gtatccttag gaattaaaaa tattccaata 60
aaaataaaat aaagatccaa atgatagtgg gataaccgaa gaggaatgtc tttcaaccac 120
tgcctgaccg ccaccactgc caacagccta gtatcaaccg aatccacata taccaacaat 180
cttcagacaa acacttctaa gttggtgctg aagagacaat atctcatggg tagatcaaat 240
taagagtgtc accaataaca aaatcgggat catttgacta acaaacagtt atgtgcattg 300
gatgttctac catagtacat tgctttatgt gaaattcttt taattattca atattgacat 360
gntcttatat atatatatat atatatatat atatatatat atatacgagg gattgnatta 420
tctctgaaaa aagattttat cataaaatca taatgatttc tcataatgna tctttacatt 480
ttaaaggtag ataaataaaa ttgattttaa tnggnagata taattaaaat acataattaa 540
tatgactttt aaccaaattg atatataaac acttaaaaaa aagttcatga acgnccgggg 600
ngnattggnt gggncaaaaa aaaattaata ctatcaacct aattaaaaat tattttatan 659

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<210> 56
<211> 805
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(805)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 56
ccaatgccag agcttcctta tcgtgggccc cacctatgaa gaatacacc acgttgaaat 60
acatgttggt gttgttggtg ggcgccagcc gagagtgccg gtccacgagt atccccaacg 120
tgcattggcg atgcgcttga aacctagtat tcatcttcct gatggaggca gccacgtgtc 180
cgacaagggt aatgttgccg ttttcgtgaa aagggtgat aatgaaaggc accatattgt 240

```

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cttgggagcag gttgaaaatg gcgtcgtgca tgctcttgta aggtgccacg ttgatgtagg 300
gaagaacctt gactggccca cttgagttgt tggagtagtt ttcgaaggct tgcattgatgt 360
gggtgggtgtt ggggtaattc acagacaaga atttctctgc accgtgtcta tgttttatgg 420
gaaggagaat ggggtgcactt ttccccacga gctcgataag gtggactgcg tagacgcata 480
tggtggctctc ttgcactggg ttgcactctt ctaataaggc agtgatgcca cgcacgtttg 540
ctttcattat gtacacaaca aaacaatgtg aaaactctct gtttcttgga ggtgctttgg 600
atcgttctcn agttccccct cgaataagct ttctgcgtgn tacttctnagg ggcctnatgt 660
ttgtaccaat atgnttancc caaggngnt tncattncn ggtctttact accacnacat 720
aacaccnat tnnatgaann gnancnatc caacntctac naaancgtna tcaatnacnt 780
tnnatngat ttgannact ggccn 805

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```

<210> 57
<211> 632
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(632)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 57
tttagaattc ataatagtga cacttgatta agttagatta gactttataa aacacgagtt 60
tgatTTTTTT ttttaataata attaggttc tagcttatat atattatata gttgatatag 120
actactttca aaagtctgac ttaaaagtct ctttagtata cataataata taacctttta 180
atttagttaa aaaatttgct cctaaataaa ttaataaatc caaacttata tacaagttaa 240
taggcttaag tcttaaaaaa ataatatata tatatatata taaagcatta aaacatttca 300
atgaaaacaa tataataata ataataataa atatattatt gttattaatt catagatttt 360
attattacta ttatagaata atttgtgtgt atatataata atatatagag agagagaggg 420
tcattttata tgagtggagaa aatttaaata ttattatgaa ttttcaaat taaaatcaca 480
tgccatatga ttttcttaaa aaattacgta actttttttt ttacaaaagt aatcatatgg 540
ttttaaaaac taatttaaatt aacttatata taactatatc agttaaatgt gggtcataaa 600
ataagtatat cagttatttt acaaaattat aa 632

```

```

<210> 58
<211> 437
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

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```

<400> 58
cttttgacac tatngaatac gaattcgaat gtcggagcgt gcagatacga gggtgagctt      60
gttttaggttt gttatcgtga acaagaaacc gtgtggttgt aaaattatTT tgacaagaga      120
agagcgtgaa gaggaagagg aagataccat gttggacgag gggttaattg acgagttcaa      180
gagcatgaaa tatggcattg gtaacgtttg ttggtacgag attacggtgg acgatggggT      240
ggaggtgttg gaagcagtgc atagtttTga aggaaactat gatcttTgta tggTgggaag      300
gcgccacaat gatggatctt tgaatggaaa agaaatgaca actttcatgg agaacgctga      360
tgcattggga atattgtggg atatgttccc ttcnccanc ntgnntggcn tngttccgct      420
tttttcgnet ntngcc                                                    437

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```

<210> 59
<211> 681
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(681)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 59
ggnttccttta gggcttcaaa atttgatcct agatcataac ttttttact ggtgacgttc      60
ctgcttcttt gggtagctta agagagctca atgagatttc ccttagtcat aataagtTta      120
gtggagctat accaaatgaa ataggaaccc tttctaggct taagacactt gacatttcta      180
ataatgcctt gaatgggaac ttgcctgcta ccctctctaa tttatcctca cttacactgc      240
tgaatgcaga gaacaacctc cttgacaatc aaatccctca aagtttaggt agattgcgta      300
atctttctgt tctgattttg agtagaaacc aatttagtgg acatattcct tcaagcattg      360
caaacatttc ctgcttagg cagcttgatt tgcaactgaat aatttcagtg gagaaattcc      420
agtctccttt gacagtcaag cgagctaaa tctcttcaat ggttcctaca atagcctctc      480
agggtctgcc ccctctgct tggcaagaaa tttaactcaa gctcatttgt gggaaatatt      540
caactatgtg gggtagagcc ttcaacccca tggctttcca agctncatca caagggggca      600
ttggccccct cctgagnggc aaacatcacc atcataggaa gctaacccca aagacataat      660
tctcatagta nccaggaggt n                                                    681

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```

<210> 60
<211> 644
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(644)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 60

```



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acaacaagca acgaacagct tttaacctta aactaggcta atgccaatat taaagaagaa      60
ataattaaaa ttgtaaggct ggtcgtgtat aaattaaaca aaaggccctc tattcaaacc    120
ttcatatatac atacctgttt ttaattaacg cggactactt tttcatataa aaaaaagatc    180
attagaggat taattttaaag cgttttagtt ttttaattacc aaagagtata attattatta    240
ggcgctttgt cccacaatca atcacctaaa caagaaaaag aaaaagaaaa aaaaagtcaa    300
attggactaa tgcaaaagtg gcacaatctt tgtcttgaac tctttaatta gcaacaaatt    360
atactcttct gcacaaatca caagaatacc ttacatgaaa agaattggtaa tttgacgggt    420
tacattaaat tatatgcagt tttctgcagg taattaattt tcaagaattt aagggtgggt    480
ggtaattttc aatagctagc ttgactagca aaggaaagaa taaaggtaaa atgcttcttg    540
gtttggcctt ttggattggt atactttttg ctaaacggaa atggttatat gaatggtaaa    600
ggagataaat tggtagatag ctaaaatggt atagncttaa tccn                        644

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```

<210> 61
<211> 678
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(678)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 61

```

```

aaattcattt aacttctcta atttttaaat cgatcaaatt tggtttttca atctaaaata      60
taagaaacta tattttgtga tgggttttaa atcgacatta agtgttctta atctaccaca    120
aaaagcacat ttccaaaaaa ataaattaat tttaaaaatt ataagatcaa attgaatcaa    180
ttttaaaaat taaaatatta aattgaaaaa aaaaataaag gatcaaattg aacataaata    240
ataaatttga ggattaaaaa actaatttaa cctttaattt tttctcactt atattaatat    300
taaaaaatta tattgatttt cctaataact ccttatctca attaaaattt ccaaaaatta    360
attctagcat cttcaaacac tactcaccat gaaagtccat cacaaccatc tttctttctc    420
ttttctctac atcatgtttt cgcttcgcaa actttattgt gttcctagtc ttagacgtct    480
gataatcttc cacaagtatt gaactataac acttattgga cttgcaccgg taatagctaa    540
caccaaatga gacgtgcact tgacttttat atcactaaga aaatttcaac acattgacca    600
agattagctc catcttgctt taacacttgg ttgactagtc acttaagtgc aacaaccact    660
ttgatatcat tgggtgga                                           678

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<210> 62
<211> 571
<212> DNA
<213> soybean

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```

<220>
<221> misc_feature
<222> (1)..(571)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 62
tcttttaaga ccattcgaca ctatagaata cgaattccat aattaacaat aaagtcacat 60
tctattatat attttttctt cttaaattac atgatatgat ttcattcatta ttgacaata 120
atgatatttt tatctcataa atattatttt gttttaaaaa tattcatagc acacacgagt 180
tttttatatc aacaaagagg tatcacttca gttgggtcaat ttgggtctaac ttttagacaa 240
tgtcgtatag ttgaattgaa ttggaatttg gcagtatata ttttactttt tgccccctta 300
ttttcaatca aattagagta gacgcctcgt attattggca tacatggata ttggatcggc 360
acctgtgttt cagacctgag tcacatctga ctcggtatga ttttatctta catgaaaatt 420
ccaaaataat gaaagatatg gcaattggca ccatgtaact ctatggacac caatgcttca 480
ccgtagagct ctaaatttcg aggccttcta tatatagctt tgcggtgacta tgtnaaatta 540
ntcaatatcn tnttaatttt ttgnggcc c 571

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```

<210> 63
<211> 856
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(856)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 63
aattagttgt cttgtttatt cattacctt tcaatttttt taatcaccat aattaaggcc 60
tttcgaatcc ctttaagtga taaaagaaac gtgcaattat gcgaacaaat aaattttcgt 120
tatgttacta tttagtcaag gaggaaaaaa aagtgataag ggaagaaaca agggatat 180
cctgttataa caaacttaaa atggcgacta ttttgacgac attgcaaata ctcatagtac 240
gatataaatt ttgaatttaa tatacaatga ataggcatat tcatttttcta ccccaaaaaa 300
gcatactcat ttatgtacat ttaattttct ctccatagag gaattaatgt acaacctatgc 360
ataagggatg agcgaaaggg acagattatt gcaatccaga agcatccaag gaaagttgga 420
taaacaaatc aattaatata tataaaaaaa aaacaaaaat gtccttagta gaagattaaa 480
ggaagagttg gctatatatg gcaaaccttt tctaactggt ttacctctt ctcatcacc 540
gcattgcac accaatcgg gaacttttcc cattacaaaa ctcatggaa gccaacatat 600
ccccaaaaat tccactggat ctgcattgtc catgaaattt gacatttctt cttctacaaa 660
attcccatgc tatgtcgttt tccaccatcc taggtcatag tcctttcttca ttccccgaat 720
cgnttcacac ttgtatgcaa tcttcacccc cagcctcatg ggaaacaccg ntaacactat 780

```

cactctaata tcattcttgg cataaactca tctataaacc tctcgncac gggctcttta 840
aattctcatc ttnttn 856

<210> 64
<211> 639
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(639)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 64

tccccttgg gtccaagta ataggccctc agagccaaaa cattggggtg tctaattttt 60
cctagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat 120
ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccatagggtg 180
ctctttccca tgatctcagc tgttgacac aagagatcat cagctgtaaa agccattggt 240
ccatcaaaat ggactagttt cctccagcc tcccacctg cttcaacatc accaccagca 300
actggaggga ctcttttttc tgtcctcata gtggccgctc taccctcggg ggcttggccg 360
tcccggcctt agatgttgat ctctttctga tcaggcagaa aagcaggaca caacaaagta 420
taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtctttg ggcttagctt 480
ctatgatggt gatggtttga cacttcagga ggtggggcaa tgactccttg tgatggagct 540
tgggaaagac atggggttga agggctggac ccacatagtt gaatatattcc acaaatgagc 600
ttgagttaaa attcttggca agcananggg ggacagaan 639

<210> 65
<211> 495
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(495)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 65

ttccaatgc cggagcttcc ctatcgtggg cccacctat gangaatata cctcgaatg 60
aaatacatgt tgttgntgnt ggacgcgccc agccgagagt gccggtccac tagtatcccc 120
aacgtgcatg gcgcatgcgc ttgaaaccta gtattcatct tctgatgga ggcagccacg 180
tgtccgacaa ggtcaatggt gccgttttctg tgaaaagga tgataatgaa aggcaccata 240
ttgtcttggg cgagggtgaa aatggcgctg tgcagtctct tgtaagggtgc cacgttgatg 300
tagggaagaa ccttgactgg cccacttgag ttgttggagt agttttcgaa ggcttgcag 360
atgtggttgg tgttggggta attcacagac aagaattttc tgcgaccggg tctatgtttt 420
atgggaagga gaatgggtgc acttttccca cgagctcnat aaggggggact gcntanacnc 480

atatggggct ctctt

495

<210> 66
 <211> 480
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(480)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 66

cnttcttaga atcgaattct ttggtatcag aacatatcag tcattttttaa agaataagaa 60
 attaaattag acttaatttt taagagtatg gattaaaatg taaaatttgt ggggattata 120
 aacataaata agtaattttt cctatatgag acattttattg aaatcttaag ataagatacg 180
 tacatgcaaa ttaaattgat gcatgataat agaattaggt gaatagtcca atacctgaca 240
 cctcttttgt ccgaagtgtt tggggcactt cttgatacct aaaccacag tgaagaagag 300
 gctctgtgca atttcagtgg gtacttcaac ttttctaggg cttctgaagc ttttctgaa 360
 ggaagtgact gcgttttgtt ccgttgtaag cagggagtgg aggcattata gggttggttt 420
 tgttctttac tcctttggca cgatggtgag aatgcttatt gtggtgattc ggtgatttgt 480

<210> 67
 <211> 669
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(669)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 67

atgccccaaa aatttaccta aaagcaaata aaaaagatga gtatttcttt taaattaaaa 60
 atattttaat aaaaataaaa taaagatcca aatgataatg tgataaccga agaggaatgt 120
 ctttcaacca ctgcctgacc gccaccactg ccaacagcct agtatcaacc gaatccacat 180
 ataccaacaa tcttcagaca aacacttcta agttggtgct gaagagacaa tatctcatgg 240
 gtagatcaaa ttaagagtgc taccaataac aaaatcgga tcatttgact aacaaacagt 300
 tatgtgcatt ggatgttcta ccatagtaca ttgctttatg tgaaattctt ttaattattc 360
 aatattgaca tgggtcttat atatatatat atatatatat atatatatat atatatacga 420
 gggattgtat tatctctgaa aaaagatttt atcataaaat cataatgatt tctcataatg 480
 gatcctntaca ttttaaaggt agataaataa aattgatttt aaatngggag atataattaa 540
 aanacataat taatatgact ttttaacaaat tgatatataa acacttaaaa aaaagntcca 600
 tgacgcacng ggggnattgg tgggacaaaa aaaattatct atcactaatt aaaantatta 660

taaatatan

669

<210> 68
<211> 486
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(486)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 68
tgggtgtatat aattaaaatg agtttaatat ttatgtatta atagtataaa atttatcata 60
catgatgaat ggtgaaattt tgaattatga ttaaataatt atataaaaaa atttacatga 120
tgaatgaata actttttttt tctcaattaa aattatgata ctttgtcgat atgttttact 180
gtgtcgacct tttttttcgg gggagagggg accagtagga gaagtagtat ttagtaaaag 240
aaggagaga gaagttgact tatcctttta ttagttttaga gaaaattaga cgagaaggaa 300
aaaaaatagg cgaaagtcac tttttctttc tatctctacc aagaatgttg atgaaaaagt 360
ggggagcaga attttaaatt tttattttca tatttatcct tctccacatt tttgntttct 420
tccatttttt tataaaanga tttatttttag gcatagntaa cttttcaatt tttttcattt 480
ctatttc 486

<210> 69
<211> 779
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(779)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 69
tatttgtaaa ttgtttttta taattgaaaa gaaaataagg ttaaattatt ttcataataa 60
aaatttaatt tgttcttata agttattttg aaaattttat taaaataagt tgaaaacaat 120
ttataaataa atcataaact ataattttat aagttttctt aaatacttac acgtatgcca 180
taaaataagt tcagataaga tataaataaa ttcttccaaa cacatcttaa atctatatatt 240
ttttaaaaca aactttcatc gttaaaagga tattataata ataataataa acttcaatca 300
ttaacaatta atatatgtgg ataaaagagc attcaaaatg atattttatt agcacatgac 360
aatcacatt actctcaagc tattttttta aactaataaa aacttacata ttatatgata 420
tgatatatac tctctctata ttacactttt ttgagataa acaaggataa aaaatgatgt 480
aaatatgacc gcatataata ttatttataa tgtacggaat gccgtttttg acattttata 540
taatatatct gggggcaatt attttcttaa ccaataatta gcaaattttt atcttgcttt 600
ttctccatgg gggctaaatt aaactaaagg gncgtaccca atccagtccc actttttttt 660

aaataattnn ttccntccc acttagnaaa ggagtnnttn ggcttaaata ggcagnncca 720
ttaaccataa gcctttnttg taaggagtct taccaantaa aatggggaag gcccccccc 779

<210> 70
<211> 677
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(677)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 70
ttattggctt aacttgagtt tcaactcctt ctctggctct ttaccagcta gcctaactca 60
ctcattttct ctacttttc tttctcttca aaataacaat ctttctggct cccttcctaa 120
ctcttggggg ggggaattcca agaatggctt ctttaggctt caaaatttga tcctagatca 180
taactttttc actggtgacg ttcttgcttc tttgggtagc ttaagagagc tcaatgagat 240
ttcccttagt cataataagt ttagtggagc tataccaaat gaaataggaa ccctttctag 300
gcttaagaca cttgacattt ctaataatgc cttgaatggg aacttgctg ctaccctctc 360
taatttatcc tcacttacac tgctgaatgc agagaacaac ctcttgaca atcaaattccc 420
tcaaagttta ggtagattgc gtaatcttct tggtctgatt ttgagtagaa accaatttag 480
tggaacatatt ctttcaagca ttgcaaacat ttctctgctt aggcagcttg atttgcaactg 540
aataatttca gtggagaaat tccagctcct ttgcagtcag cgcagctaaa tctcttcaat 600
ggttcctaca atagcctctc anggtctgtc cccctctgc ttgccaagaa atttaactca 660
agctcatttg tgggaat 677

<210> 71
<211> 571
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(571)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 71
tggtgactggc tgtgactgat ctctctggct taatctcttc cagctgctgg agaacttgat 60
gaacttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt 120
ttagcaactc gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat 180
ttgtccactc ctctttgaca actgaggcaa cccactgagg caaatctagt ccattcatag 240
acaccccagg tgatttctc gttaggagtt ctaacaagat aacaccaaga ctgtagatat 300
cagttttagt gtttgcttct ttgagctttg agagctcagg tgcccgggat cccaatgctt 360

cagctgtagc tatcacgttg gaattagcag cagttgacat caaccgagaa agacccaaaat 420
 ctgcaatttt agcatttgna ttctcattaa acaacacaat gntggatgng anggtncat 480
 ggatgaaggt cttctnggna agnaagnaaa acaaagcacc gggccaaggn ttgggctaata 540
 ttcaaccttg gggggcaaac naanaaatgt t 571

<210> 72
 <211> 756
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(756)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 72

attggcttaa cttgagtttc aactccttct ctggctcctt accagctagc ctaactcact 60
 cattttctct cacttttctt tctcttcaaa ataacaatct ttntggctcc cttnctaact 120
 gtgggggggg gaatancaag gngggcttta ggctgcaaaa tttgatccta gatcataact 180
 ttttactgg tgacgttctt gcttctttgg gtagcttaag agagctcaat gagatttccc 240
 ttagtcataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctta 300
 agacacttga catttctaata aatgccttga atgggaactt gcctgctacc ctctctaatt 360
 taccctcact tacactgctg aatgcagaga acaacctcct tgacaatcaa atccctcaaa 420
 gtttaggtag attgcgtact ctttcctggt ccgattttga gtagaaacca atttagtgga 480
 catattcctt caagcatngc nnacatttcc tcgcttaggc agcttgattg tcaactgaata 540
 atttcaggtg gagaaattnc agtctncttt gacagtcagc gcagtctaaa tcttcttcaa 600
 tggtnctac aataggcctc tcagggtctg gcccccttt gnttggccaa ggaaanttaa 660
 ctttaagctta tttgngggg aaanattcaa ctatgggggg acncggccct ttaaaccceca 720
 gggnttttcc caggttcctt ccaaggngc anttgt 756

<210> 73
 <211> 557
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(557)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 73

tgtgactgat ctctctggtc taatctcttc cagctgctgg agaacttgat gaacttctgg 60
 tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt ttagcaactc 120
 gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat ttgtccactc 180
 ctctttgaca actgaggcaa cccactgagg caaatctagt ccattcatag acnccccagg 240

tgatttcntc gttaggagtt ntaacaagat aacaccaaga ctgtagatat cagtttttagt	300
gtttgctttc ttgagctttg agagttaagg gncccggant cccannngntc nagttgnagt	360
tatanctgtg gaattagcag nagttgcntc aaccgaaaaa gaccaaaatc tgaatttttag	420
catttgtttt tcatcaagca acacattgnt ggatgngagg tcccatgtat gatgttctcc	480
tgggaatgaa ggcaaacaag cccgggccaa ggcttgggct attttaatcc ttggtggcca	540
aacaatgaaa ggttnat	557

<210> 74
 <211> 673
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(673)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 74

gggactggct gtgactgatc tctctggtct aatctcttcc agctgctgga gaacttgatg	60
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtggt	120
tagcaactcg tcgccaactg tggatgcac tctcatcaag tctgcatcaa aaacctcatt	180
tgtccactcc tctttgacaa ctgaggcaac ccaactgaggc aaatctagtc cattcataga	240
caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac ttagatatac	300
agtttttagtg tttgctttct tgagcttttg agaagctcag gtgcccggta tcccaaagtc	360
ttccagctgt agcttatcac cggtgggaat taagcagcaa gttggacatt caacccggag	420
naaaagaccc aaaaattttg caaattttta agcaatttng gnantttctn aatcaaggcc	480
aaccaccaat tggnttggga atgggtgaag ggtttcccca atggtaattg gaagggtttc	540
ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaagg	600
nttttggggg ccttattttt tncnaatncc ctttggnggg ggncccaaat tcnaaantgg	660
aaattggntt tnn	673

<210> 75
 <211> 602
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(602)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 75

aggctagctg gtaaaggacc agagaaggat ttgaaactca agttaagcca ataaagctta	60
gtggaattag caagactata agggattgct cctgtgagca agttgttgct gaggtcaaga	120

gactgaagca aagggcagaa acctaaagaa agaggtatgg aacctgtaag cctattgttg	180
aataactgaa cccctctaag gttgggaaga agtcccaaag ttgaagggat tgaaccacca	240
atttggttat catgaagact aagcttcctg aggccttgaa gttggccaat tttggcggtg	300
attcgacccc tcaaaccctt ccaaggaagc tggatcacia taacctgtcc ctgagcacac	360
ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgcaa	420
gaacccttct ggatcagcca actcttgctt gaaagcttat cacatgtacc tctctacaga	480
taggagggtg cttcttcctt ttcactggnc tacctcttcg ggaataagcc acctaagag	540
aaagaaagan ctgggatagc taactctaca tagnctcaag gcnagagata attagggaaa	600
ng	602

<210> 76
 <211> 748
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(748)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 76

attggcttaa cttgagtttc aactccttct ctggctcttt accagctagc ctaactcact	60
cattttctct cacttttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact	120
cttgggggtgg gaattccaag aatggcttct ttaggcttca aaatttgatc ctagatcata	180
actttttcac tggtgacgtt cctgcttctt tgggtagctt aagagagctc aatgagattt	240
cccttagtca taataagttt aatggagctg taccaaataa aataggaacc ctttctaggc	300
ttaagacact tgacatttct aataatgcct tgaatgggaa cttgcctgct accctctcta	360
atttatcttc acttacactg ctgaatgcag agaacaacct ccttgacaat caaatccctc	420
aaagtttagg tagattgcgt aatctttctg ttctgatttt gggtagaaac caatttagtg	480
gacatatcc ttcaagcatt gcaaacattt cctcgcttag gcagcttgat ttgcaactgaa	540
taatttcagt ggagaaattc cagtctcctt tgacagtcaa gcgcaagtct aaatctcttc	600
aatgtttcct acaatagcct ctganggtct gnccccctc tgcttgccaa gaaatttaac	660
tcaagctcat ttgtgggaaa tattcaacta tgtgggacag nccttcaacc ccatgttttn	720
ccaagcttca tacaaggagc atggccct	748

<210> 77
 <211> 563
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature

```

<222> (1)..(563)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 77
ctggctgtga ctgatctctc tgggtctaate tcttccagct gctggagaac ttgatgaact      60

tctggtcgtg ctgatggaga aggatcaaca cagtgcacaa cgagcttcaa cgtgttttagc      120

aactcgtcgc caactgtgga tgcattctctc atcaagtcctg catcaaaaac ctcatcttgc      180

cactcctctt tgacaactga ggcaaccac tgaggcaaat ctagtccatt catagacacc      240

ccagggtgatt tctcgttag gagttctaac aagataacac caagactgta gatatcagtt      300

ttagtggtttg ctttcttgag ctttgagagc tcagggtgcc ggtatcccaa tgctccagct      360

gtagctatca cgttggaatt agcagcagtt gacatcaacc cgagaaagac caaaatctgc      420

aatttttagca tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat      480

gatgttctcc tgggaatgaa ggcagaacaa gccacggcca agcttggcta tttcatcctt      540

gtggccaatc aatgaatggt cat                                             563

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<210> 78
<211> 623
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(623)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 78
gattttgcac atctacttga gtaggcttca catgattccg tgtattactt ttatttttgg      60

atatatacca tgtggagtat agtatcactt tttgtcctac aaccacattt tatgagactt      120

gcattttatg tgacatgaac ataaaaaata atgaaaaaga aaatgtcaca tatatatgat      180

acaatctttt taaaagtcaa tttgaataat ttttcatcag gaggaaaaag aagagagaaa      240

atgaattaag tttcttctaa aaattaaaat caacttataa aaagaaaaaa cttaaatgaa      300

aaaaattcaa aaagaaaaag aataaaatga tcaatagcct ttaggtttta gcacaagggtg      360

aatccaaata aagaccccaa aagatagtag agaaccacac aatggtaaaa tctagaaata      420

tacatgtaaa gactgcattt atagaccatc atgactagca aatgcttaaa ggcacataga      480

tgaattaatc tatgcaacaa aatctgnccc aagttttttt tangcaagga aaatcatatc      540

atttatttaa ggataactga gaggaccaat ggtgtaatca attgaaatca tgcgaggctt      600

acatgaaatc tgtcaccaag tac                                             623

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<210> 79
<211> 605
<212> DNA
<213> soybean
<220>

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```
<221> misc_feature
<222> (1)..(605)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 79
ctcccgggtc ccaagtaata gggccctcag agccaaaaca ttgggggggc taatttttcc      60
tagaacactg acttctgatt caaattctct atgaccttta gtgatctttt ccctcaatct      120
ctttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct      180
ctttcccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc      240
atcaaaatgg actagtttcc ctccagcctc cccacctgct tcaacatcac caccagcaac      300
tggaggggact ccttttttctg cctcatagt ggcgctctac cctcggtggc ttggccgntc      360
ccggccttag atgntgatct ctttctgatc aggcagaaaa gcaggacaca acaaagnata      420
atcaggacta cgaggagaac tcttgctact atgagaatta tgnctttggg gcttagcttc      480
ctatgatggg gatggttnga cacttcanga gggggggcaa tgactccctg gganggagct      540
tgggaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc caciaangag      600
cnngn                                                                    605
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<210> 80
<211> 711
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(711)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 80
ttaangncca acgactcact atagggcgaa ttggggccga cgtcgcatgc tcccggccgc      60
catggccgcg ggattggctt aacttgagtt tcaactcctt ctctggctct ttaccagcta      120
gcctaactca ctcatcttct ctcaactttc tttctcttcn taaaataaca atctttctgg      180
ctcccttcct aactcttggg gtgggaattc caagaatggc ttcttttaggc ttcaaaatct      240
gatcctagat cataactttt tcaactggtga cgttcctgct tctttgggta gcttaagaga      300
gctcaatgag atttccttta gtcataataa gtttagtgga gctataccaa atgaaatagg      360
aaccctttct aggccttaaga cacttgacat ttctaataat gccttgaatg ggaacttgcc      420
tgctaccctc tctaatttat cctcacttac actgctgaat gcagagaaca acctccttga      480
caatcaaadc cctcaaagtt taggtagatt gcgtaatctt tctgttctga ttttgagtag      540
aaaccaatct agtggacata ttccctcaag cattgcaaac atttcctcgc ttaggcagct      600
tgatttgta ctgaataatt tcagtggaga aattccagtc tcctttgaca gtcagcgag      660
tctaaatctc ttcaatgttt cctacaatag cctctcaggg tctgtcccc n              711
```

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<210> 81
<211> 716
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(716)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 81
ttntgaaaa ccttttgcta tttaggtgac actatagaat actcaagcta tgcattccaac      60

gcgttgggag ctctcccata tggtcgacct gcaggcggcc gcactagtga ttaatacgac      120

tcactatagg gctcgagcgg ccgcccgggc aggtgggact ggctgtgact gatctctctg      180

gtctaattctc ttccagctgc tggagaactt gatgaacttc tggtcgtgct gatggagaag      240

gatcaacaca gtgcaaagcg agcttcaacg tgtttagcaa ctcgtcgcca actgtggatg      300

catctctcat caagtctgca tcaaaaacct catttgtcca ctctctcttg acaactgagg      360

caaccactg aggcaaattc agtccattca tagacacccc aggtgatttc ctcgttagga      420

gttctaacaa gataacacca agactgtaga tatcagtttt agtgtttgct ttcttgagct      480

ttgagagctc aggtgcccgg tatcccaatg ctccagctgt agctatcacg ttggaattag      540

cagcagttga catcaaccga gaaagaccaa aatctgcaat tttagcattt gtattctcat      600

caagcaacac attgctggat gtgaggttcc catgtatgat gttctcctgg gaatgaaggc      660

agaacaagcc acggggccaag tcttgggcta ttttcattct tggggggcca atcaan      716

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<210> 82
<211> 713
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(713)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 82
ttcctaangc ctacgactcc tatagggcga attggggccg acgtcgcatg ctcccggccg      60

ccatggccgc gggattatac gactcactat agggctcgag cggccactat gaggacagaa      120

aaaggagtcc ctccagttgc tgggtggtgat gttgaagcag gtggggaggc tggagggaaa      180

ctagtccatt ttgatggacc aatggccttt acagctgatg atctcttggt tgcaacagct      240

gagatcatgg gaaagagcac ctatggaact gtttataagg ctattttgga ggatggaagt      300

caagttgcag taaagagatt gagggaaaag atcactaaag gtcatagaga atttgaatca      360

gaagtcagtg ttctaggaaa aattagacac cccaatgttt tggctctgag ggcctattac      420

ttgggaccca aaggggaaaa gcttctgggt tttgattaca tgtctaaagg aagtcttgct      480

tctttctac atggtaagtt tcgtgtgctg ttctttcatt aagtgttggt tgtgctgttc      540

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tttaattata atttggagtt ttaccttagt aatctgtata attctaatacg gagaacagta 600
caaacaaaaa cacctaagga acaacacctt anctttaata taccatatca ataagtgaat 660
tattttctta ttcattctga tgcagggtgtt ggaactgaaa catttatttg atn 713

<210> 83
<211> 712
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(712)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 83

nnnctaaggc ccnttactca ctatngggcg aattggggccc gacgtcgcat gctcccgccc 60
gccatggccc gcgggattgg cttaacttga gtttcaactc cttctctggt cctttaccag 120
ctagcctaac tcaactcattt tctctcactt ttctttctct ttaaaataac aatctttctg 180
gctcccttcc taactcttgg ggtgggaatt ccaagaatgg cttctttagg cttcaaaatt 240
tgatcctaga tcataacttt ttcactgggt acgttctctg ttctttgggt agcttaagag 300
agctcaatga gatttccctt agtcataata agtttagtgg agctatacca aatgaaatag 360
gaaccctttc taggcttaag acacttgaca tttctaataa tgccttgaat gggaaacttg 420
ctgctaccct ctctaattta tctcactta cactgctgaa tgcagagaac aacctccttg 480
acaatcaaat ccctcaaagt ttaggtagat tgcgtaatct ttctgttctg attttgagta 540
gaaaccaatt tagtggacat attccttcaa gcattgcaaa catttctctg cttaggcagc 600
ttgatttgca ctgaataatt tcagtggaga aattccagtc tcctttgcag tcagcgcagt 660
ctaaatctct tcaatggttn ctacaatagn ctctcagggt ctgnccccc tn 712

<210> 84
<211> 681
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(681)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 84

ggnttcttta gggcttcaaa atttgatcct agatcataac ttttttact ggtgacgttc 60
ctgcttcttt gggtagctta agagagctca atgagatttc ccttagtcat aataagttta 120
gtggagctat accaaatgaa ataggaaccc tttctaggct taagacactt gacatttcta 180
ataatgcctt gaatgggaac ttgcctgcta ccctctctaa tttatcctca cttacactgc 240
tgaatgcaga gaacaacctc cttgacaatc aaatccctca aagtttaggt agattgcgta 300
atctttctgt tctgattttg agtagaaacc aatttagtgg acatattcct tcaagcattg 360

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caaacatttc ctcgcttagg cagcttgatt tgcactgaat aatttcagtg gagaaattcc 420
agtctccttt gacagtcaag cgcagctaaa tctcttcaat ggctcctaca atagcctctc 480
agggtctgcc cccctctgct tggcaagaaa tttaactcaa gctcatttgt gggaaatatt 540
caactatgtg gggtagagcc ttcaacccca tggctttcca agctncatca caagggggca 600
ttggccccct cctgagnggc aaacatcacc atcataggaa gctaaccocca aagacataat 660
tctcatagta nccaggaggt n 681

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<210> 85
<211> 639
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(639)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 85
tcccttttgg gtcccaagta ataggccctc agagccaaaa cattgggggtg tctaattttt 60
cctagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat 120
ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccatagggtg 180
ctctttccca tgatctcagc tggtgcacac aagagatcat cagctgtaaa agccattggt 240
ccatcaaaat ggactagttt cccctcagcc tccccacctg cttcaacatc accaccagca 300
actggaggga ctcctttttc tgctctcata gtggccgctc taccctcggt ggcttggccg 360
tcccggcctt agatgttgat ctctttctga tcaggcagaa aagcaggaca caacaaagta 420
taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtctttg ggcttagctt 480
ctatgatggt gatggtttga cacttcagga ggtggggcaa tgactccttg tgatggagct 540
tgggaaagac atggggttga agggctggac ccacatagtt gaatatattcc acaaatgagc 600
ttgagttaaa attcttgga agcananggg ggacagaan 639

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<210> 86
<211> 661
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(661)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 86
gaaggatggt tattttgaag agaaagaaaa gtgagagaaa atgagtgagt taggctagct 60
ggtaaaggac cagagaagga gttgaaactc aagttaagcc aataaagctt agtggaatta 120
gcaagactat aagggtattg tctgtgagc aagttgttgc tgaggtcaag agactgaagc 180

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aaagggcaga aacctaaaga aagaggtatg gaacctgtaa gcctattggt gaataactga      240
accctcttaa ggttgggaag aagtcctaaa gttgaaggga ttgaaccacc aatttggtta      300
tcatgaagac taagcttctg aggccttgaa gttggccaat ttgtcggtg attcgacccc      360
tcaaaccctt ccaaggaagc tggatcacia taacctgtcc ctgagcacac ttgattccaa      420
cccacctccg gaacaagctc catagccact gtcattccag cttccgcaag aaccttctg      480
gatcagccaa ctcttgcttg aaaagcttat cacatgtacc ttttacagat aggaggntgc      540
ttcttccttt cactggctta cctcttcgga ataagccaac ctaatgagaa agaaagatct      600
gngatagctn atttacatac tnagnacagag ataattantg naagcnnaag ttaaacntnt      660
t                                                                                   661

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<210> 87
<211> 626
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(626)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 87

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aatctgtggg ctacaaagga tgaacgtaaa ctatatgcac ctccagctgg ttcaggcttc      60
atatctggct ttacttctat ctcacgcaga tcttctgttg atagtactca aaatctgtct      120
attccttttg gtccaagctc atacctttct gcacaggctc gagtagttga tgagtattct      180
atgtcccaga ttatcttaca aaatgtgctt gatggagggg tcaactggat gttaatatgt      240
gtcactgggt caagccatgt tacatatgga tctagaggaa ctggagtgcc agcaagaatt      300
tcaggaaaaa taaaaaagaa aaaccatgca gttatattac ttgacctga aagacaattc      360
attcgagagag aaggagaagt tcctgttgct gatTTTTTgt ggtattctgc tgcgagaccc      420
tgtagtagaa attgctttga ccgtgctgag attgctcggg ttatgaatgc tgctgggcgg      480
aggcgagatg ccctcccaca ggtaaaccac caattacagt tactaatttg tttgactggt      540
aatcttcttg ccccatagac cctncttcca atttttagcc ctttatgtcc tctcattcct      600
agngggataa gggtttgggg gnggtg                                                                                   626

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<210> 88
<211> 627
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(627)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 88

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tgaaaaactg aaggacacaa ttaaatctaa aaaataaata aattaaaaga ctaaaaaata      60

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aatctatcca aaattaaaag gtttattctt ggaagtaatg aaatgtatth tgactctttg 120
aagaatgcat tactataatg aaagagtagg tggagagagg ggataataaa atcccactaa 180
ataacatcca tgactatcac tataaaaaaa aatattatta ttaagataag aagaattatc 240
taacttgaat aagagactac taccaaagtg agaaaaaggt cttataacat agagtthttc 300
aagthttacct ataaaacttg taataagatt tgthtttcaa ccatctaatt thttattagt 360
gtggactgca taaaaaaaat atagtaacaa gaaactacta aattagactt thtgaactat 420
tcattgtatg gctgccatga aacctacctg cctggagggg tgggtcccac gtaagactgt 480
aagagggagg aggggaagcac tagtcacaca ccggcgcacg ttagcgaggc aatgttccta 540
gattgaaacg gagaaggtga ttagaggggc ggaaatctca aagcagacac aggcaactaa 600
thtatcgctt cthttctcat tcgctta 627

<210> 89
<211> 782
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(782)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 89

cacataatta acaataaagt catcttctat tatatattht thtttcttaa attacatgat 60
agtatttcat cattatttga caataatgat atthttatct cataaatatt atthtgttht 120
aaaaatattc atagcacaca cgagtthttt atatcaacaa agaggatatca cttcagttgg 180
tcaatttggg ctaactthta gacaatgtcg tatagttgaa ttgaattgga atthtggcagt 240
atatatttht cthtttgccc ccttatttht aatcaatta gagtagacgc ctcgtattat 300
tggcatacat ggatattgga tcggcacctg tgthtcagac ctgagtcaca tctgactcgg 360
atcgatttht tcttacatga aaattccaaa ataatgaaag atatggtaat tggcaccatg 420
taactctatg gacaccaatg cttcacgtag agctctaaat ttgaggcctt ctatatatag 480
thtgcgtgac tatgtaaatt atcaatatca thtaatttht ttgcgaccac gaaatatacg 540
aatttattat tgaacacaaa aagtagagtg tatattthta gtctaggatt ttatgagagg 600
caaaaataag aataacctt tgatatattt tcttggatac actthcttht ttatatattt 660
thtaataatg gattataatt tattggaaac aatcaatta tangggaaaa thcattggaa 720
taaaagaang aaattthaaa aaaaatataa ththtaataa atthtaagtaa taaaatcct 780
tt 782

<210> 90
<211> 160
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(160)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 90
tggttgagat gtgtataaga gacagttgcc ccacctcctg aagtgcaaaa acatcaccat 60
cataggaagc taagcaccaa agacataatt ctcatagtag caggagttct cctcgtagtc 120
ctgattatac tttgttgtgt cctgcttttc tgcctgatca 160

<210> 91
<211> 779
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(779)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 91
tgctcccgcc gcatggccgn gggattggct taacttgagt ttcaactcct tctctgggcc 60
tttaccagct agcctaactc actcattttc tctcactttt ctttctcttc aaaataacaa 120
tctttntggc tcccttncta actgtggggg ggggaatanc aaggngggct ttaggctgca 180
aaatttgatc ctagatcata actttttcac tggtgacgtt cctgcttctt tgggtagctt 240
aagagagctc aatgagattt cccttagtca taataagttt agtggagcta taccaaatga 300
aataggaacc ctttctaggc ttaagacact tgacatttct aataatgcct tgaatgggaa 360
cttgccctgt accctctcta atttatactc acttacactg ctgaatgcag agaacaacct 420
ccttgacaat caaatccctc aaagtttagg tagattgcgt actctttcct gttccgattt 480
tgagtagaaa ccaatttagt ggacatatc cttcaagcat ngcnnacatt tcctcgctta 540
ggcagcttga ttgtcactga ataatttcag gtggagaaat tncagtcctc tttgacagtc 600
agcgcagtct aaatcttctt caatggttnc tacaataggc ctctcagggg ctggccccc 660
tttgnttggc caaggaaant taacttaagc ttatttgngg gggaaanatt caactatggg 720
gggacncggc cctttaaacc ccagggnntt tcccagggtc cttccaaggg ngcanttgt 779

<210> 92
<211> 743
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(743)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 92

ttggcttaac ttgagtttca actccttctc tggctcttta ccagctagcc taactcactc	60
atcttctctc acttttcttt ctcttcaaaa taacaatctt tctggctccc ttcctaactc	120
ttggggtggg aattccaaga atggcttctt taggcttcaa aatttgatcc tagatcataa	180
ctttttcact ggtgacgttc ctgcttcttt gggtagctta agagagctca atgagatttc	240
ccttagtcat aataagttta gtggagctat accaaatgaa ataggaaccc tttctaggct	300
taagacactt gacatttcta ataatgcctt gaatgggaac ttgcctgcta ccctctctaa	360
tttatcctca cttacactgc tgaatgcaga gaacaacctc cttgacaatc aaatccctca	420
aagtttaggt agattgcgta atctttctgt tctgattttg agtagaaacc aatttagtgg	480
acatattcct tcaagcattg caaacatttc ctgcttagg cagcttgatt tgtcactgaa	540
taatttcagt ggagaaattc cagtctcctt tgacagtcag cgcagtctaa atctcttcaa	600
tgtttcctac aatagcctct cangttctgn cccccctctg cttgccaaga aattaactca	660
agctcatttg tgggaaatat tcaactatgt gggacaggcc ttcaacccca ngctttacca	720
agcttcatca caaggggcat tgg	743

<210> 93
 <211> 742
 <212> DNA
 <213> soybean
 <220>
 <221> misc_feature
 <222> (1)..(742)
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
 <400> 93

ttaacttgag tttcaactcc ttctctggtc ctttaccagc tagcctaact cactcathtt	60
ctctcacttt tctttctctt caaaataaca atctttcttg ctcccttctt aactcttggg	120
gtgggaattc caagaatggc ttcttttaggc ttcaaaattt gatcctagat cataactttt	180
tactgggtga cgttcctgct tctttgggta gcttaagaga gctcaatgag atttccctta	240
gtcataataa gtttaatgga gctgtaccaa atgaaatagg aaccctttct aggcttaaga	300
cacttgacat ttctaataat gccttgaatg ggaacttgcc tgctaccctc tctaatttat	360
cctcacttac actgctgaat gcagagaaca acctccttga caatcaaata cctcaaagtt	420
taggtagatt gcgtaatctt tctgttctga ttttgggtag aaaccaattt agtggacata	480
ttccttcaag cattgcaaac atttcctcgc ttaggcagct tgatttgca tgaataattt	540
cagtggagaa attccagtct cctttgacag tcaagcgcaa gtctaaatct cttcaatgtt	600
tcctacaata gcctctcang gtctgncccc cctctgcttg ccaagaaatt taactcaagc	660
tcatttgtag gaaatattca actatgtggg acagnccctc aaccccatgt tttaccaagc	720
ttcatacaag gagcatggcc ct	742

```

<210> 94
<211> 741
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(741)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 94
cttaacttga gtttcaactc cttctctggg cctttaccag ctagcctaac tcactcattt      60
tctctcactt ttctttctct tcaaaataac aatctttctg gctcccttcc taactcttgg      120
gggtgggaatt ccaagaatgg cttcttttagg cttcaaaatt tgatcctaga tcataacttt      180
ttcactgggtg acgttcctgc ttctttgggt agcttaagag agctcaatga gatttccttt      240
agtcataata agtttagtgg agctatacca aatgaaatag gaaccctttc taggcttaag      300
acacttgaca tttctaataa tgccttgaat gggaacttgc ctgctaccct ctctaattta      360
tcctcactta cactgctgaa tgcagagaac aacctccttg acaatcaaat ccctcaaagt      420
ttaggtagat tgcgtaatct ttctgttctg attttgagta gaaaccaatt tagtggacat      480
attccttcaa gcattgcaa catttcctcg cttaggcagc ttgatttgca ctgaataatt      540
tcagtggaga aattccagtc tcctttgaca gtcaagcgca gtctaaatct cttcaatggt      600
tcctacaata gcctctcang ttctgcccc ctctgcttgc caagaaattt aactcaagct      660
catttggtggg aaatattcaa ctatgtggga caggccttca accccatggt tttccaagct      720
ccatcacaag gggcattgcc t                                     741

```

```

<210> 95
<211> 743
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(743)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 95
cttaacttga gtttcaactc cttctctggg cctttaccag ctagcctaac tcactcattt      60
tctctcactt ttctttctct tcaaaataac aatctttctg gctcccttcc taactcttgg      120
gggtgggaatt ccaagaatgg cttcttttagg cttcaaaatt tgatcctaga tcataacttt      180
ttcactgggtg acgttcctgc ttctttgggt agcttaagag agctcaatga gatttccttt      240
agtcataata agtttagtgg agctatacca aatgaaatag gaaccctttc taggcttaag      300
acacttgaca tttctaataa tgccttgaat gggaacttgc ctgctaccct ctctaattta      360
tcctcactta cactgctgaa tgcagagaac aacctccttg acaatcaaat ccctcaaagt      420
ttaggtagat tgcgtaatct ttctgttctg attttgagta gaaaccaatt tagtggacat      480

```

attccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgca ctgaataatt 540
tcaaggggag aaattncagt ctcccttgac agtcaagcgc aagtctaaat ctcttcaatg 600
gttcctacaa taagcctctc anggctctgnc cccctctgct ttgncaagaa aattaactca 660
agctcatttg ggggaaatat tcaactatgn gggacagncc ttcaacccat gttttccaag 720
ctccatacan gagcatggcc cnt 743

<210> 96
<211> 742
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(742)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 96
cttaacttga gtttcaactc cttctctggt cctttaccag ctgacctaac tcactcatTT 60
tctctcactt ttctttctct tcaaaataac aatctttctg gctcccttcc taactcttgg 120
ggTgggaatt ccaagaatgg cttcttttagg cttcaaaatt tgatcctaga tcataacttt 180
ttcactggTg acgttctctg ttctttgggt agcttaagag agctcaatga gatttccctt 240
agtcataata agtttagtgg agctatacca aatgaaatag gaaccctttc taggcttaag 300
acacttgaca tttctaataa tgccttgaat gggaacttgc ctgctaccct ctctaattta 360
tctcactta cactgctgaa tgcagagaac aacctccttg acaatcaaat ccctcaaagt 420
ttaggtagat tgcgtaatct ttctgttctg attttgagta gaaaccaatt tagtggacat 480
attccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgTc actgaataat 540
ttcaggggga gaaattccag tctcctttga cagtcagcgc aagtctaaat ctcttcaatg 600
gttcctacaa tagcctctca nggtctgncc cccctctgct tgncaagaaa ttaactcaag 660
ctcatttgTg ggaaatattc aactatgnng gacaggcctt caacccatgt ttttccaagc 720
ttcatacaag gagtaatggc ct 742

<210> 97
<211> 716
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(716)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 97
ggacagaaaa aggagtccct ccagttgctg gtggTgatgt tgaagcaggT ggggaggctg 60
gagggaaact agtccatttt gatggaccaa tggcttttac agctgatgat ctcttgTgTg 120
caacagctga gatcatggga aagagcacct atggaaactgt ttataaggct attttggagg 180

```

atggaagtca agttgcagta aagagattga gggaaaagat cactaaaggt catagagaat 240
ttgaatcaga agtcagtgtt ctaggaaaaa ttagacaccc caatgttttg gctctgaggg 300
cctattactt gggacccaaa ggggaaaagc ttctgggttt tgattacatg tctaaaggaa 360
gtcttgcttc tttcctacat ggtaagtttc gtgtgctgnt ctttcattaa agtgntgggn 420
gggctggctt ttaattataa ttggagttt taccttanta atctgtataa ttctaacgg 480
agacaagtca aacaaaaacc ctaaggaaca acnccttanc tttaatatnc catatcaata 540
angngaatta tttnttggg tcatgtgatg cngggggng gnaactnaaa cnttnatttg 600
ntgggccacn anggnnnnaa aannncacaa ananttggnc cngnggnttn gnnntgcctt 660
tantnccang anaaacatna tacanggnan ctnnctcnn naangtnntn gttngn 716

```

```

<210> 98
<211> 616
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(616)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 98
ggacagaaaa aggagtcctt ccagttgctg gtggtgatgt tgaagcaggt ggggaggctg 60
gagggaaact agtccatttt gatggaccaa tggcttttac agctgatgat ctcttggtgtg 120
caacagctga gatcatggga aagagcacct atggaactgt ttataaggct attttggagg 180
atggaagtca agttgcagta aagagattga gggaaaagat cactaaaggt catagagaat 240
ttgaatcaga agtcagtgtt ctaggaaaaa ttagacaccc caatgttttg gctctgaggg 300
cctattactt gggacccaaa ggggaaaagc ttctgggttt tgattacatg tctaaaggaa 360
gtcttgcttc tttcctacat ggtaagtttc gtgtgctgnt ctttcattaa gtgttggtgtg 420
tgctgttctt taattataat ttggagnttt accttagtaa tctgtataat tctaacgga 480
gaacagtcaa aaaaaacacc taaggaacaa caccttagct ttaatatcca tatcaataag 540
tgaatatttt cttggtcatc ttgatgcagg ngngngaact tgaacaatca ttgattggnc 600
caccanggat gaaaat 616

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```

<210> 99
<211> 532
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(532)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 99

```

```

actggctgtg actgatctct ctggtctaat ctcttccagc tgctggagaa cttgatgaac      60
ttctggctgt gctgatggag aaggatcaac acagtgcaaa gcgagcttca acgtgttttag    120
caactcgtcg ccaactgtgg atgcatctct catcaagtct gcatcaaaaa cctcatttgt      180
ccactcctct ttgacaactg aggcaaccca ctgaggcaaa tctagtccat tcatagacac      240
cccaggtgat ttctctgtta ggagttctaa caagataaca ccaagactgt agatatcagt      300
tttagtgttt gctttcttga gctttgagag ctgaggtgcc cggtatccca atgctccagc      360
tgtagctatc acgttggaat tagcagcagt tgacatcaac cgagaaagac caaaatctgc      420
aatttttagc tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat      480
gatgttctcc tgggaatgaa ggcggaacaa gccacgggcc aagtcttggt ct              532

```

```

<210> 100
<211> 568
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(568)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 100

```

```

tatgaggaca gaaanttnag tccctccagt tgctgggtgg gatgttgaag caggtgggga      60
ggctggaggg aaactagtcc attttgatgg accaatggct tttacagctg atgatctctt    120
gtgtgcaaca gctgagatca tgggaaagag cacctatgga actgtttata aggctatttt    180
ggaggatgga agtcaagttg cagtaaagag attgagggaa aagatcacta aaggcatag      240
agaatttgaa tcagaagtca gtgttctagg aaaaattaga caccccaatg ttttggtctct    300
gagggcctat tacttgggac ccaaagggga aaagcttctg gtttttgatt acatgtctaa    360
aggaagtctt gcttctttcc tacatggtaa gtttcgtgtg ctgttctttc attaagtgtt    420
gtgtgtgctg ttctttaatt ataatttga gttttacctt agtaatctgt ataattctaa    480
tcggagaaca gtcaaacaaa aaccctaagg aacacacctt actttaatat accatatcaa    540
taagngaata atttcttggt catcttga              568

```

```

<210> 101
<211> 678
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(678)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 101

```

```

gggtgggactg gctgtgactg atctctctgg tctaactctt tccagctgct ggagaacttg      60
atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt    120

```

```

gttttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc 180
atctgtccac tctcttttga caactgaggc aaccactga ggcaaatacta gtccattcat 240
agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgtagat 300
atcagtttta gtgtttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc 360
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagacaaaa 420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtccc 480
atgtatgatg ttctcctggg aatgaaggca gaacaagcca cgggccaagt cttngctat 540
tttcatcctt ggtggccaat caatgaatgg ttcagttnc cacctgcat caagatgaac 600
aagaaaataa ttcacttatt gatatggnat attaaaagct aaggggtggt ccctaggggg 660
tttggttga cggncnn 678

```

```

<210> 102
<211> 673
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(673)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 102

```

```

ggtgggactg gctgtgactg atctctctgg tctaatactt tccagctgct ggagaacttg 60
atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gttcaacgt 120
gttttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc 180
atctgtccac tctcttttga caactgaggc aaccactga ggcaaatacta gtccattcat 240
agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgtagat 300
atcagtttta gtgtttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc 360
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagacaaaa 420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtccc 480
atgtatgatg ttctcctggg aatgaaggca gaacaagcca cggccaagtc ttngctatt 540
ttcatccttg ttggccaatc aatgaatggt tcaagttccc cacctgcatc aagatgaaca 600
agaaaataat tcacttaatg gatatggnat attaaagcta aggggtggtc cntagggggt 660
ttgggttgnc cng 673

```

```

<210> 103
<211> 665
<212> DNA
<213> soybean
<220>

```

```

<221> misc_feature
<222> (1)..(665)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 103
gggtgggactg gctgtgactg atctctctg tctaattctt tccagctgct ggagaacttg      60
atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt      120
gttttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc      180
atttgtccac tcctctttga caactgaggc aaccactga ggcaaattcta gtccattcat      240
agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgtagat      300
atcagtttta gtgtttgctt tcttgagctt tgagagctca ggtgcccggg atcccaatgc      360
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagacaaaa      420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtccc      480
atgtatgatg tctnctggga atgaaggcan aacaagccac ggccaagtct tgggctattt      540
tcatccttgt ggncaatcaa tgaatggtta anttcccccc ctgcttcaag atgaacaaga      600
aaataattca cttattggtt gggntatnaa actaaggggn gncctaggg gnttngntgn      660
ccnct

```

```

<210> 104
<211> 671
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(671)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 104
gggtgggactg gctgtgactg atctctctggt tctaattctt tccagctgct ggagaacttg 60
atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt 120
gttttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc 180
at ttgtccac tctcttttga caactgaggc aaccactga ggcaaattcta gtccattcat 240
agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgtagat 300
atcagtttta gtgtttgctt tcttgagctt tgagagctca ggtgcccggg atcccaatgc 360
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagaccaa 420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggttccc 480
atgtatgatg ttctcctggg aatgaaggca gaacaagcca cggccaagtc ttgngctatt 540
ttcatccttg gtggccaatc aatgaatgtt tcagttccac cacctgcac aagatgaaca 600
agaaaataat tcacttattg atatggnata ttaaagctaa ggggtggtcc ntaggggggtt 660
tnqntgggcc c 671

```



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<210> 105
<211> 670
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(670)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 105
ggtagggactg gctgtgactg atctctctgg tctaattctt tccagctgct ggagaacttg      60
atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt      120
gttttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc      180
atgtgtccac tcctctttga caactgaggc aaccactga ggcaaatacta gtccattcat      240
agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgtagat      300
atcagtttta gtgtttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc      360
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagacaaaa      420
atctgcaatt ttagcatttg tantctcatc aagcaacaca ttgctggatg tgagggtccc      480
atgtatgatg tcctcctggg aatgaaggca gaacaagcca cgggccaagt cttgggctat      540
tttcatcctt ggtgggcaa tcaatgaatg gttcaanttc ancacctgcn tcaagangaa      600
caagaaaata attnctatg gnnnggatat naaactaagg gngggnctta ggggtntngn      660
nngnccggcn                                                                670

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```

<210> 106
<211> 662
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(662)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 106
ggtagggactg gctgtgactg atctctctgg tctaattctt tccagctgct ggagaacttg      60
atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt      120
gttttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc      180
atgtgtccac tcctctttga caactgaggc aaccactga ggcaaatacta gtccattcat      240
agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgtagat      300
atcagtttta gtgtttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc      360
tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagacaaaa      420
atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtcca      480
tgtatgatgt tctnctggga atgaaggcag aacaagccac gggccaagtc ttngnctatt      540

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tcacacctgt gggcaatcaa tgaatgttta anttcncac ctgcttnaga ggaccaagaa 600
aanattactt attggntggg tattaagct aaggggggn cctaaggggn ttggnnggc 660
cc 662

<210> 107
<211> 792
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(792)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 107
tatttacaac tagtggtatc ggagaatgaa aaattgaaga ataataagtt cagctataat 60
aaactcgagg gaggaaaaac aaagaaattc atgataaata gatataactt attaaattta 120
aggggtgtat ttgcacaccc tgaattatag agattcttat atctttgaga aaataattaa 180
attgggaaaa aagagataat gactgattga gatttgctc agaattgttc gttttaatat 240
tggtacgaat ctaatggntt taccctgaaa gatgctcaca agtattgagg gactaataaa 300
ttgnttataa actactacta aatgagatga gactttaagg ngtactgaag caatatcatt 360
taaaaaatga ctactcgcat ttgngttgag aaaatttatt ttcattgaaag naaattttnt 420
cctttttang ataaagccat tttncttaac cnnangggga nataaaatgg ccccnttca 480
taaaaaacct accantata taaatggatn tataccaacc ttcctangca ccatgccatt 540
gggatnggng gaattaaatt naaaangntt gcnttggaat gggtaaaaaa ttccaaaact 600
tnaaccnccn ccacaatttt agtggccacn gnaatattnn ttanccgntg gncntttttc 660
caggaaaacg acccgtaacc aaanggggnn aaaagggaaa gggagatgga ttgcntgngn 720
gtntgaggct catccnatt cccaacatg ttngggncnc aaaaccgaag tncctctgga 780
ccatggatgn cn 792

<210> 108
<211> 573
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(573)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 108
gggactggct gtgactgatc tctctggtct aatctcttcc agtgctgga gaacttgatg 60
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaactggtt 120
tagcaactcg tcgccaactg tggatgcac tctcatcaag tctgcatcaa aaacctcatt 180
tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga 240

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caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatata 300
agtttttagtg tttgctttct tgagctttga gagctcaggt gcccggtatc caatgctcca 360
gctgtagcta tcacgttgga attagcagca gttgacatca acccgagaaa gacccaaatt 420
gcaatttagc anttgnattc ttatnaacaa cacaatgggt ggatgngang gtnccaagga 480
ttgangtttt ctgggaatga aaggganaaa caagccccgg gccaaagntt ggggttattt 540
tnaancctgg ngggncaaan aaangaaagg ttn 573

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<210> 109
<211> 673
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(673)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 109
gggactggct gtgactgatc tctctggtct aatctcttcc agctgctgga gaacttgatg 60
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtggt 120
tagcaactcg tcgccaaactg tggatgcatc tctcatcaag tctgcatcaa aaacctcatt 180
tgtccactcc tctttgacaa ctgaggcaac ccaactgaggc aaatctagtc cattcataga 240
caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatata 300
agtttttagtg tttgctttct tgagcttttg agaagctcag gtgcccggta tcccaaattg 360
ttccagctgt agcttatcac cggtgggaat taagcagcaa gttggacatt caacccggag 420
naaaagaccc aaaaattttg caaattttta agcaatttng gnanntcttn aatcaaggcc 480
aaccaccaat tggnttggga atgggtggaag gggttcccca atggtaattg gaagggtttc 540
ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaagg 600
nttttggggg ccttattttt tncnaatncc ctttggnnng ggncccaaat tcnaaantgg 660
aaattggntt tnn 673

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<210> 110
<211> 564
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(564)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 110
actggctgtg actgatctct ctggtctaatt ctcttccagc tgctggagaa cttgatgaac 60
ttctggctgt gctgatggag aaggatcaac acagtgcaaa gcgagcttca acgtgtttag 120

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caactcgtcg ccaactgtgg atgcatctct catcaagtct gcatcaaaaa cctcatttgt 180
ccactcctct ttgacaactg aggcaacca ctgaggcaaa tctagtccat tcatagacac 240
cccagggtgat ttccctcgta ggagttctaa caagataaca ccaagactgt agatatcagt 300
tttagtggtt gctttcttga gctttgagag ctcagggtgcc cggatatcca atgctccagc 360
tgtagctatc acgttggaat tagcagcagt tgacatcaac ccgagaaaga ccaaaatctg 420
caatttttagc atttgattc tcatcaagca acacattgct ggatgtgagg ttcccatgta 480
tgatgttctc ctgggaatga aggcagaaca agccacggcc aagcttggct atttcacct 540
tgtggccaat caatgaatgg tcat 564

<210> 111
<211> 456
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(456)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 111

actatgagga cagaaaaagg agtcctcca gttgctggtg gtgatgttga agcgggtggg 60
gaggctggag ggaaactagt ccattttgat ggaccaatgg cttttacagc tgatgatctc 120
ttgtgtgcaa cagctgagat catgggaaag agcacctatg gaactgttta taaggctatt 180
ttggaggatg gaagtcaagt tgcagtaaag agattgaggg aaaagatcac taaaggctcat 240
agagaatttg aatcanaagt cagtgttcta ggaaaaatta nacaccccaa tgttttggtt 300
ntgaggccta ttacttggga cccaaagggg aaaagcttnt ggtttttgat tcatgtntaa 360
aggaagtctt gcttntttcc tacatgnaa gtttcggggc tgtctttnat taanggtngg 420
gngngctggn tttaattata atnngngtt tacctt 456

<210> 112
<211> 592
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(592)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 112

actatgagga cagaaaaagg agtcctcca gttgctggtg gtgatgttga agcagggtggg 60
gaggctggag ggaaactagt ccattttgat ggaccaatgg cttttacagc tgatgatctc 120
ttgtgtgcaa cagctgagat catgggaaag agcacctatg gaactgttta taaggctatt 180
ttggaggatg gaagtcaagt tgcagtaaag agattgaggg aaaagatcac taaaggctcat 240
agagaatttg aatcagaagt cagtgttcta ggaaaaatta gacaccccaa tgttttggtt 300

ctgagggcct attacttggg acccaaaggg gaaaagcttc tggtttttga ttacatgtct 360
aaaggaagtc ttgcttcttt cctacatggg aagtttcgtg tgctgttctt tcattaagtg 420
ttgggtgtgc tgggtctttaa ttataatttg gagtttacct tannaatctg gataattcta 480
atcggagaac agncaaaca aancctaag gaacaacct tanctttaat atccatatca 540
ataagngaan tatttcttgg tcatcttgat gcaggggggg gnactgaaca tt 592

<210> 113
<211> 460
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(460)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 113
gggactggct gtgactgatc tctctgggtc aatctcttcc agctgctgga gaacttgatg 60
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtggt 120
tagcaactcg tcgccaactg tggatgcac tctcatcaag tctgcatcaa aaacctcatt 180
tgtccactcc tctttgacaa ctgagggaac cactgaggc aaatctagtc cattcataga 240
caccacaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatata 300
agtttttagtg tttgctttct tgagctttga gagctcaggt gcccggtatc ccaatgcttc 360
agctgtagct atcacgttgg aattagcagc agttgacatc aaccgagaaa gacaaaaatc 420
tgcaatttta gcatttgnat tctcattaaa caacacaatg 460

<210> 114
<211> 566
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(566)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 114
gggactggct gtgactgatc tctctgggtc aatctcttcc agctgctgga gaacttgatg 60
aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtggt 120
tagcaactcg tcgccaactg tggatgcac tctcatcaag tctgcatcaa aaacctcatt 180
tgtccactcc tctttgacaa ctgagggaac cactgaggc aaatctagtc cattcataga 240
cnccccaggt gatttcntcg ttaggagttt taacaagata acaccaagac tgtagatata 300
agtttttagtg tttgctttct tgagctttga gagttaaggg ncccggantc ccannntcn 360
agttgnagtt atancgttgg aattagcagn agttgcntca accgaaaaag accaaaaatc 420

gaatttttagc atttgttttt catcaagcaa cacattgntg gatgngaggt cccatgtatg 480
atgttctcct gggaatgaag gcaaacaagc ccgggccaaag gcttgggcta ttttaatcct 540
tggtggccaa acaatgaaag gttnat 566

<210> 115
<211> 16
<212> DNA
<213> soybean
<400> 115
gactgcgtac caattc 16

<210> 116
<211> 16
<212> DNA
<213> soybean
<400> 116
gatgagtcct gagtaa 16

<210> 117
<211> 22
<212> DNA
<213> soybean
<400> 117
gggtttcaga taaccgtggt cg 22

<210> 118
<211> 25
<212> DNA
<213> soybean
<400> 118
ttgcagatat tttagttgat tggcc 25

<210> 119
<211> 24
<212> DNA
<213> soybean
<400> 119
agttgattgg ctcaaaccat ggcc 24

<210> 120
<211> 20
<212> DNA
<213> soybean
<400> 120
ttgcgtgtga tcggtattac 20

<210> 121
<211> 20
<212> DNA
<213> soybean
<400> 121
tacctgagtt ctctcaagtc 20

<210> 122
<211> 252
<212> DNA
<213> soybean
<220>
<221> misc_feature
<222> (1)..(252)
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 122
gatttagact gcgctgactn tcaaaggaga ctggaatttc tccactgaaa ttattcagtg 60

acaaatcaag ctgcctaagc gaggaaatgt ttgcaatgct tgaaggaata tgtccactaa 120

attggtttct actcaaaatc agaacagaaa gattacgcaa tctacctaaa ctttgagggga 180

tttgattgtc aaggagggtg ttctctgcat tcagcagtgt aagtgaggat aaattagaga 240

gggtagcagg ca 252